CHEMICAL MARKETS

VOL. XXVII SEPTEMBER, 1930 No. 3.

Political Business

CERTAIN Gentlemen of the Congress have made a great hubbub during the last session, shouting loudly and waving their black coat-tails. They have brought disrepute throughout the country upon the legislative branch of our government and they have succeeded in making themselves ridiculous because thinking people recognize that they have been obstructionists in order to bolster up their own inferiority complex.

POLITICAL leaders must always reckon with whatever forces control the economic powers of a nation whether they deal with these forces broadly for the common good or narrowly for their self preservation. An oriental despot may for a time be comparatively free from such influences through the simple expediency of confiscating the economic control. A Senator or Congressman, elected by popular vote, is of necessity highly susceptible to this control.

FOR Government—any Government—always concerns itself especially with that particular group which at the time holds the reins of economic power. At one time it was the Nobility; at another, the Church. The dominant group and the expression of its power both change; nevertheless the source of that power is economic control which demands, and often deserves, special consideration. All of which is merely a roundabout definition of "practical politics."

IT IS the failure of certain Senators and Congressmen to comprehend what it means to the United States to have passed definitely out of the agricultural into the industrial stage of development that makes their obstructionism not only futile but also funny.

THEY have apparently no inkling of such plain facts as that most of our national wealth is now produced by manufacturing process; that our industries have developed upon a thoroughly national scale; that public ownership of corporation stocks is as widely scattered as it has become; that our national well being and individual prosperity rest today chiefly upon industrial foundations. And so they are blind to the new problems—and they are many and very serious—that have arisen to confront us. They are as ignorant as an Iroquois of the new world of finance and science applied to mass production in which we live. They are simply unable to follow the modern political leadership of a Hoover or a Mellon. They are more to be pitied than scorned. But in the meantime they are a first-class nuisance.

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"AMERICAN" Alcohol is the quality alcohol. It never dips below the high curve of excellence. Manufacturers who make "American" their standard are handsomely rewarded.

The "American" set-up is ideal for all users of alcohol. Quality . . . obtained through close technical control of operations. Service . . . made vital by a long-experienced organization.

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Solvents and Plasticizers manufactured by the
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Butyl Acetate, Nor. and Sec.	Butyl Alcohol, Sec.	Diamyl Phthalate
Amyl Acetate	Amyl Alcohol	Dibutyl Phthalate
Amyl Propionate	Butyl Stearate	Dibutyl Tartrate
Butyl Propionate	Refined Fusel Oil	Triacetine
Butyl Butyrate	Dimethyl Phthalate	Special Solvents and Plasticizers

S. A. S.
SOUTH ATLANTIC STATES

"Go South, young man" probably would be Horace Greeley's admonition today. Certainly, the rising tide of industrial activity in the Southern states forecasts huge developments for the future. Alcohol is an ingredient of many of the manufactured products of this territory.

AMERICAN BRAND DENATURED ALCOHOL
AMERICAN COMMERCIAL ALCOHOL CORPORATION

Dividends

Companies in chemical process industries while naturally reacting to the less favorable conditions make a very satisfactory showing when comparison is made with those in other fields.

A study of 365 issues on which dividends have either been omitted or cut reveals if we exclude those who are refiners of metals, but one or two companies that are producers of chemicals.

The motor and metal industries together with a variety of specialty lines appear to have suffered the most while oil, food, amusement, railroad and chemical companies appear to have been more fortunate.

A note of optimism is sounded by the fact that while 365 companies have either cut or omitted dividends so far this year, nearly 400 have declared extras of one sort or another while over 700 have paid stock, extra cash or increased dividends or initiated payments.

Census Figures

Preliminary census figures just released disclose the fact that the population of the United States is in excess of 123 million. With this foundation there is nothing of a permanent nature to fear in the present state of demoralized trade. With an available market such as these figures indicate, and with the American public educated to a high plane of living the present business respite can mean nothing other than a temporary relaxation from a too feverish desire for volume on the part of manufacturers, resulting in overproduction and keenly competitive prices.

When this surplus has been worked off, as were the war surpluses ten years ago, a return of normal business conditions will follow. The lesson we should learn from the past ten months is a greater respect for economic law. It is as inflexible as the nature laws and the punishment of the transgressor of either is death.

Soviet Recognition

The Soviet Government and its present American commercial representative, the Amtorg Trading Company have been basking in the spotlight of publicity these past few weeks. The Fish investigations of red propaganda, the paper-pulp shipments, the alleged dumping of manganese ore, and the placing of large orders for equipment and machinery with American manufacturers, have focused public interest on the present Russian government. It is quite evident that we are rapidly approaching a point in the road, if indeed we are not already there, where some decided course of official action will become imperative.

The form of government in Russia is the Russian people's own business and not ours. On the other hand what the Soviet Government proposes to attempt here is very definitely our business and could and should be dealt with promptly and effectively by the Department of Justice.

But there is still a different kind of recognition. The Soviet Government has embarked upon a most ambitious, so called, five-year plan for the development of their natural resources, the establishment of Russian agriculture upon a modern basis, and the development of industrial Russia. In the last section of this program chemicals played a most important part and in establishing and up-building a chemical district in Russia, the best technical advice and the best equipment and processes available around the world are being assembled. Whether or not it is good business for American manufacturers of chemical apparatus and American owners of valuable chemical process rights to sell these to the Russians is another question. This is a straightforward question of business expediency and wisdom in a long-time policy.

Summer Employment

With the opening of the technical college year but a week or so off the question arises as to what benefit the student derives from an extended and enforced vacation away from the lecture hall and laboratory desk. To some it means a good coating of tan, to others a few dollars saved, and to a small minority a better appreciation of future responsibilities in the industries and a more definite understanding of the practical application of theoretical knowledge.

The Chemical industry would be distinctly benefited financially were it to establish a definite and more inclusive plan of summer employment for our students enrolled in technical colleges. That the young men preparing themselves for services in the chemical field would profit both financially and intellectually by the adoption of such a program is self-evident.

Executives, specially those in the larger corporations, know that the graduate is seldom worth his salt for at least two years and possibly longer. Most students are graduated before they have formulated any clear idea of future

business activity and not a few do not arrive at this decision before one or two years have elapsed.

Four or five vacation periods devoted to actual participation in the field would help materially in clarifying the student's mind and lessen the monetary loss caused by frequent employment changes.

This "non-interest" bearing period could be shortened considerably by a well devised scheme of a centralized bureau of employment, jointly participated in by the industry, the colleges and universities, and the students.

Quotation Marks

As stagnant water is conducive to the breeding of mosquitoes, so is inactive business productive of criticism and discontent. When everybody is busy, there is little talk of what ought to be. But when times are hard and when minds are free to dwell upon the hardships of life, bitterness develops and men speak out against the real or imagined injustice of their plight.

With depression so widely distributed throughout the world, it is not surprising that dissension has developed in many sections. The wonder is that more violent demonstrations have not occurred.

The ability of suffering humanity to thrust aside the sugared promises of agitators should not blind leaders of industry to their obligations to society in times of business depression. In the United States, where we have established a higher standard of living, it is especially important that those who are looked to for guidance should be careful not to provide ammunition for class discord.—*Steel.*

Those who vision the tremendous future before America can have no ground for hesitation in committing themselves to the purchase of supplies, to the erection of buildings or to any other wise and proper investment. Extended plant capacity following the War and the attendant high pressure salesmanship may have caused us to buy things we did not need, but it is a serious question whether we have been buying luxuries or whether we have not been truly adding to our fundamental wealth. Is the money being spent on tens of thousands of young men and women to-day in our colleges a luxury or is it a means of adding to the wealth of America? Is the radio a luxury or is it a producer of happiness, wider vision, broader education and intelligent inspiration? Who denies the wealth created by the automobile and by good roads?

What a vista is opening before us. Why should we be controlled by fear? It is a time to buy.—*Manufacturers Record.*

Up to a few years ago I thought organic chemistry the most fascinating of all human pursuits. Inorganic and physical chemistry seemed dull, and, to-day I almost fear to say it, unimportant in comparison. The wonderful development of the coal-tar colour industry seemed to be one of the world's greatest achievements. —*Dr. Herbert Levinstein.*

Prophets of perpetual prosperity are no longer as thick as locusts in time of plague. Yet we are all looking forward with longing eyes.

We have little time for looking backward. We *do* have five- and 10-year periods for statistical comparisons. But 25 and 50 years back are ancient history. Our popular vocabulary is filled with new words—mechanization, mass-production, stabilization, equalization, co-operation, co-ordination, stock smashes, farm relief, chain stores, branch and group banks, automobiles, aeroplanes, radios, mergers, trusts, holding companies, governmental commissions, boards, committees, labor and law reforms, social, political, economic changes.

Work a full day's effort for a fair day's pay; selling goods for a small, sure profit; planting and reaping on the tested fields of the farm; uniting two enterprises to meet an enlarged demand; building homes, roads, schools, as normal taxes will warrant; having the dollars earned, one by one, as well as economizing by "saving the waste" and using less; making things last longer, helping each other to "raise a house" or gather a crop by voluntary co-operation; recalling the days and ways of the "fathers" of those "mudsills" of civilization—all these belong to almost forgotten yesterdays.

We will not keep to the "middle of the road" because we want to pass everybody that's out.—*Financial Chronicle.*

Fifteen Years Ago

(From our issues of September 1915)

First national exposition of chemical industries opened in Grand Central Palace, New York.

Godfrey L. Cabot, Boston, purchased controlling interest in the Monarch Carbon Co., Charleston, W. Va.

U. S. Industrial Alcohol Co. completed erection of plant at Curtis Bay, Md.

E. I. du Pont de Nemours & Co., Inc., was incorporated with $240,000,000 capital stock to succeed the E. I. du Pont de Nemours Powder Co. Incorporators were Pierre S. du Pont, John Raskob, and J. P. Laffey.

Federal Chemical Co. was incorporated with $4,000,000 capital to develop Tennessee phosphate rock deposits.

W. D. Huntington was elected vice-president of Davison Chemical Co.

Whys and Wherefores *of the New I.C.C. Shipping Regulations*

By A. D. Whittemore

General Traffic Manager, American Cyanamid Company

Shippers of chemicals are confronted with a complete revision of I. C. C. regulations effective October first. Just what they mean to chemical manufacturers is explained by one well qualified to interpret the technical language of the commission.

THE last general amendment of the I. C. C. shipping regulations became effective January 1st, 1923. Since that date, the chemical industry has made tremendous strides; new products, new containers, and new types of freight cars have been brought out, requiring many new regulations and amendments of existing ones. As a result, some confusion existed as to types of containers necessary for the many chemicals now being freely transported by rail, water, and express. The Interstate Commerce Commission undertook to co-ordinate the many regulations and amendments and to bring down to date the requirements of the chemical industry and the best transportation methods. Hearings were held before the Interstate Commerce Commission for the past two years and finally culminated in a set of new regulations effective October 1st, 1930. In this work, the Bureau of Explosives and manufacturers of chemicals collaborated with the Interstate Commerce Commission to make regulations which would safeguard the carriers and at the same time place no undue burden on the chemical industry.

Every chemical manufacturer and shipper must come into contact with the Interstate Commerce Commission regulations for the transportation of explosives and other dangerous articles. A dangerous article may be either an inflammable article, a poison, a compressed gas, or a corrosive substance. With few exceptions, it may be said that the regulations are peculiar to the chemical industry, and when dealing in any of the products of this industry, familiarity with the packing and shipping requirements is essential. Ignorance of these regulations has in the past caused many serious disasters, involving loss of life and destruction to property.

The codification of the Penal Laws of the United States with subsequent amendments, approved by Congress March 4th, 1921, known as the Explosives Act, gave to the Interstate Commerce Commission, a body created by Congress, power to make rules and regulations for the transportation of dangerous articles which would be binding upon common carriers and shippers of such articles.

The penalty for wilful violation is a fine not exceeding $2,000 or imprisonment not exceeding eighteen months, or both. If the wilful violation causes death or injury to a person, the penalty is $10,000 fine or imprisonment for ten years, or both.

In giving the Interstate Commerce Commission power to make regulations, Congress stated that use could be made of the Bureau of Explosives and any department of the Government in executing the provisions of the Act.

This Bureau is an organization maintained by the railroads, with offices at 30 Vesey Street, New York City, under the direction of Colonel B. W. Dunn. The purpose of the Bureau is to recommend to the Commission, regulations for packages, cars, and practices affecting the transportation of dangerous articles, to secure to the railroads maximum protection. The Bureau publishes the regulations of the Interstate Commerce Commission as a freight tariff.

Any shipper desiring to transport a dangerous article can appeal to the Interstate Commerce Commission direct for a new packing specification or regulation, or a modification of an existing regulation, under which he could ship his commodity. Or the shipper can confer with the Bureau of Explosives and agree mutually upon such regulations as might be necessary, in which case the Bureau would make recommendation for such specification or regulation to the Interstate Commerce Commission. The Inter-

state Commerce Commission would thereupon, if it found no objection, issue an order promulgating the regulation.

The Bureau of Explosives is given authority by the Interstate Commerce Commission to make inspections, conduct investigations, confer with shippers and report to the Commission the results of such investigations with recommendations. This Act by the Interstate Commerce Commission represents a grant or delegation of authority by the Interstate Commerce Commission. The Commission will give "due weight" to such recommendations in making its order. Practically the same procedure is made in connection with tank car specifications; where the Tank Car Committee of the American Railway Association is to consider such matters and make recommendations to the Commission.

The Commission, under the new regulations, may make its decision upon the recommendation of these Bureaus with or without public hearing, or without notice of any kind, if it wishes.

The fact that the Bureau of Explosives is a railroad body must not be lost sight of. The Bureau at times may be inclined to lean to the end of over-cautiousness which, in those instances may place difficulties in the way of chemical manufacturers. Giving authority to the Bureau to conduct investigations and make recommendations to the Commission is without doubt placing the balance of equity in the hands of the carriers, which should be a matter of concern to all manufacturers especially since the Commission may issue orders without hearing or notice. At the same time, the Explosives Act, which is the basis for the regulations, empowers the Commission to use the Bureau of Explosives, and the Commission has simply made the greatest possible use of the permission contained in the statute.

Cooperation between Bureau and Shippers

There are, of course, many matters which can be settled by co-operation between the Bureau of Explosives and shippers without the intervention of the Commission; just as many freight rate matters can be adjusted between carriers and shippers,—but where there are differences of opinion between the manufacturers and shippers and the Bureau of Explosives on questions of packages and private car equipment, the right to have a hearing before the Interstate Commerce Commission's Bureau in charge of these regulations should not be denied to shippers. It should not be denied even in the first instance if shippers desire to go to the Commission direct on a matter affecting the regulations. This is the procedure in connection with the regulation of freight rates and it should be no different in connection with the regulation of the shipment and transportation of dangerous articles. Shippers of dangerous chemicals should not hesitate to place before the Commission full facts representing their views on matters affecting new regulations or amendments.

A. D. Whittemore

"Ignorance of I. C. C. regulations has caused many serious disasters"

Specifications for Shipping Containers

The regulations contain a very complete index of dangerous articles and makes reference to the sections dealing with the packing requirements and specifications for such articles. Shippers of chemicals should consult this index to see whether their products are required to be packed and shipped in accordance with the regulations. If the commodities are at all dangerous and are indexed, they must see that the packages in which their articles are packed comply with the requirements. The specifications for packages will be different for liquid, dry, and viscid materials and will also be different depending upon whether greater or smaller quantities of materials are packed in one container. There are specifications for containers which are destroyed upon opening and which are known as single trip containers. These specifications differ from those which govern the containers which can be used for refilling and shipping time and again.

Heretofore the specification numbers of the various containers have been maintained in rather a haphazard way. In the new regulations, the numbers of many of the specifications have been changed to place them in numerical sequence. The heavy reshipping drums which have been known as the Series 5 specifications have not been changed but all of the single trip containers made after October 1st, 1930, must bear the new specification numbers. Containers made prior to October 1st can still be used with the old specification numbers until further order of the Commission.

The specifications for containers are so numerous for the various kinds of chemicals that are shipped and for the many different sizes in use that the only way to ascertain if any change has been made in the thickness of the steel or wood or in any other detail of manufacture of containers is to consult the specifications themselves. In some cases possible economies of container manufacture may be gained. All shippers and manufacturers should carefully scrutinize the specifications for such changes that may affect the future shipment of their commodities.

The requirements for labeling packages containing dangerous articles have not been changed and it is still important that all shipments should conform to the regulations in this respect. These labels whether they are the red inflammable label, the yellow corrosive label, or the white poison label, are necessary warnings to employees of the carriers that articles so labeled are to be handled carefully and inspected for leakages. Omission of application of labels to packages in conformity with the regulations may result in serious accidents.

New Specifications for Tank Cars

The new regulations bring down to date the many new specifications for tank cars. The growth of the chemical industry in recent years has created many new types of tank cars for transportation of compressed gases. The American Railway Association exercises close scrutiny of the details of manufacture of all tank cars since these cars are used mainly in the transportation of dangerous articles. Tank car manufacturers and many large chemical manufacturing companies are constantly researching into the possibilities of new metals and inside linings for tank cars which might improve this equipment and reduce the cost of transportation. The new regulations in consolidating the specifications which have been promulgated in recent years make them accessible for use by the chemical industry. Changes in the specifications to conform with particular requirements are possible to secure upon consultation with the American Railway Association Tank Car Committee.

An important part of the regulations are the rules governing the handling of tank cars containing dangerous articles to conform with the safest practices. Copies of these rules should be placed in the hands of all industrial yard employees and they should be part of the educational safety-first campaigns in every chemical plant.

Copies of the new regulations may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., or from the Bureau of Explosives, 30 Vesey st., New York.

German acetate rayon prices are again reduced. I. G. acetate unit at Berlin fast increases its production, and though prices are lower, better methods leave better profit margin even than with double the price in force a year ago.

Soviet Five Year Plan

Soviet Government has embarked on an ambitious plan for industrial chemical reorganization, technically known as the Five Year Plan. The first of these years expired in October last and an official announcement reports the plan for the first year reached a high point of 94.7 per cent of actual fulfillment in sulfuric acid production.

It is estimated that by the first year program the general manufacturing capacity of the chemical industry has been increased by twenty-three per cent.

The Five Year Plan has not been fulfilled in a number of products, notably sulfuric acid and superphosphate. The delayed installation of the acid plants at Winnitza and Odessa have in turn held up superphosphate production. Slow progress in the soda ash industry is attributed to technical difficulties. Impression is growing in Soviet circles that the centralization of control in the hands of one heavy chemical trust is not satisfactory.

Production of Acids, Alkalis and Salts

Product	*1927–28* *Tons*	*1928–29* *Tons*	*Percentage Fulfillment of Plan*
Acids, Total	287,941	359,941	117.4
Chamber Acid as 100% material	124,802	162,978	....
Oleum and Contact Acid, 100%	63,378	73,459	....
Total Sulfuric Acid, 100%	188,180	236,451	94.7
Oil of Vitriol recovered	34,881	53,329	....
Hydrochloric Acid, 18° Bé	54,097	53,937	129.1
Total Alkalis	285,633	326,143	96.5
Soda Ash	207,271	229,992	93.9
Caustic Soda	55,827	63,805	101.7
Sodium Bicarbonate	14,244	22,006	129.4
Potash	6,057	6,870	101.6
Superphosphate	149,555	182,336	71.2
Total Salts	121,320	151,550	95.0
Sodium Sulfate	35,248	34,655	70.8
Sodium Sulfide	11,254	13,540	115.7
Aluminum Sulfate	14,974	18,093	128.5
Copper Sulfate	2,967	5,537	98.0
Zinc Chloride	12,524	12,629	110.8
Sodium Bichromate	3,276	5,450	....
Potassium Bichromate	619	784	....
Chrome Alum	1,534	2,201	....
Alumina Alum	926	729	....

Canadian Chemicals

Canadian output of chemical and allied products has grown nearly 50 per cent in value since 1925. Acids, alkalis, and salts represent over one-third of this industry and have showed largest growth, namely, 122 per cent. An increase of 82 per cent in the output of compressed gas industry is also noteworthy. It is of interest to compare group values in 1925 with those of 1929, shown as follows:

	1925	*1929*
Coal tar distillation	$2,503,000	$4,007,000
Acids, alkalis, and salts	25,397,000	57,442,000
Compressed gas	2,087,000	3,801,000
Explosives, ammunition, fireworks	10,259,000	10,711,000
Medicinals, pharmaceuticals and toilet preparations	17,308,000	21,884,000
Paints, pigments, varnishes	22,234,000	29,565,000
Soaps and washing compounds	14,068,000	18,443,000
Wood distillation	1,970,000	1,902,000
Adhesives	1,443,000	2,052,000
Inks	2,315,000	3,036,000
Matches	2,055,000	1,875,000
Fertilizers	1,438,000	2,332,000
Polishes and dressings	1,624,000	1,351,000
Flavoring extracts	1,687,000	1,900,000
Miscellaneous chemical industry	6,519,000	10,192,000
Total	112,907,000	168,599,000

Sicilian exports of citric acid during 1929 aggregated 2,615,273 kilos, valued at 42,785,865 lire, compared with 3,156,695 kilos, valued at 49,797,023 lire for 1928. (Average value of lire in 1928—$0.0526; in 1929—$0.0523 United States currency). Shipments to the principal markets were: France, 433,535 kilos, valued at 7,128,780 lire; Germany, 570,225 kilos, valued at 6,119,627 lire; Great Britain, 594,405 kilos, valued at 9,649,041 lire; Argentina, 215,200 kilos, valued at 3,605,520 lire.

Mellon Institute of Industrial Research, Pittsburgh, issues third annual supplement to biographic bulletin No. 2, listing 1929 publications by members.

Modern Financing *in the* Chemical Industry

Chemist, Industrialist and Capitalist form a new triumverate in modern chemical undertakings.

By George J. Scully

Partner, Libaire & Company
Member of the New York Stock Exchange

PREVIOUS to the World War, chemistry was as mysterious to the financier as finance was to the chemist. The banker could very easily visualize the cotton or the steel industry, but the chemical industry smacked of black magic.

The average financier's knowledge of chemical history was linked up with the alchemist of the Dark Ages, toiling a lifetime in a futile effort to transform baser metals into gold. The man of money felt instinctively that the correct procedure for the transmutation into gold was out of ships, railroads, mines and factories, and not in the recesses of evil-smelling laboratories.

The awakening came with the war. Where formerly the chemical manufacturer was misunderstood, hampered and even viewed with suspicion by the world of finance, during the last fifteen years he has been keenly sought after by those who hold the nation's purse strings.

Chemicals Quadrupled Since 1914

The chemical industry has developed as a three-cornered alliance between the chemist, the industrialist and the banker, but it is extremely doubtful if the full significance of this combination and the phenomenal growth of our chemical facilities is fully known or appreciated.

The value of chemical products produced in the United States has quadrupled since 1914; the industry now ranks third in importance according to capitalization, while chemicals and allied products constitute the country's fourth largest industry in value of output. The value of dyes from our factories has increased seventeen-fold in fifteen years. Approximately one-tenth of the largest income tax reporters in the field of manufacturing are chemical companies.

Enter the Financier

Twenty-five years ago a banker's name on the board of directors of a chemical company was looked upon with askance—a virtual admission of impending insolvency. To-day the list of directors of any of the larger chemical groups almost invariably discloses the name of at least one more prominently known in the financial world. So far-reaching has this trend become that in a great many instances it would be difficult to say to which classification our national leaders belong. Are Orlando Webber or William Bell financiers or chemical manufacturers? The answer, of course, is that they are both.

The reason or rather reasons that have brought about this change are readily discernible. Momentous economical changes are the result of one or more remote but important causes and one or more immediate, transitory reasons. For the time being, we are interested in the more remote and more important causes.

We are to a large degree living in an industrial chemical age of synthesis and the start has just been made. In the eighteenth century, the chemical requirements of the nation consisted solely of such staple heavy chemicals as white lead, mineral acids, gunpowder, the common alkalies and a few fine chemicals and pharmaceuticals, easily manufactured

and limited in their scope of activity. The needs of the country were comparatively simple and, in the main, satisfied by natural products expressly provided for by "Mother Nature" or obtainable by some relatively slight alteration. But, "Mother Nature" has given definite indication that her supplies are not inexhaustible, specially to improvident and careless children such as we have proven ourselves to be. Our necessities and luxuries have increased to the point where we require commodities that "Mother Nature" failed to provide at all and so in peace, as in war, the chemist is turned to devise our needs synthetically.

Turn where you will, the chemist is dangling some new synthesis before you. Synthetic dyes, synthetic leather, silk, and wood are already with us in wide applications and rubber, wool, fuel and even food synthetically produced are just around the corner. Men of foresight perceive the day, not far distant, when our daily needs will almost entirely be satisfied by the fruit of the chemically-trained mind.

And so of necessity the chemist and the banker have been brought together for the common weal. If future generations are to exist on this sphere it will be by the grace of the chemist and his chemical manufacturer. As Doctor Levinstein in his presidential address, delivered recently before the Society of Chemical Industry, so ably said, "It is becoming a matter no longer of choice but of necessity for the human race to utilize the air, the soil, and the sun to the best advantage and to make the earth more productive of food and raw materials." To Doctor Levinstein and men of his vision the atmosphere and the rays of the sun are not only the sources of future wealth but protection of our very existence.

Wall Street is now vitally interested in chemicals

Banker as Physician or Mortician

And now as to the more immediate reasons for the presence of the banker in the chemical industry. They are of course economic. In the past decade all industry has operated on a severely competitive basis brought about by a condition of temporary but almost universal overproduction. The general price trend of most commodities has been downward and at this moment there are many who believe that we are not as yet at end of this tendency. Then too, it must be borne in mind that, comparatively speaking, the chemical industry in this country was in its infancy fifteen years ago. It has been the history of every major industry to witness at the start, a multitude of enterprises and gradually through absorption, consolidations, amalgamations and the inevitable law of the survival of the fittest, to see that the number reduced. The railroads and the steel industries are but two outstanding examples of this economic trend. The record shows that despite a tremendous growth in total output, the number of establishments has declined, evidencing the steady trend in the direction of centralization. It is at this particular point that the banker enters into the picture either as physician or mortician depending upon the set of conditions he is confronted with. It is he who possesses the instruments required to perform the necessary operations and if the face of the chemical industry does look somewhat distorted to those who knew it a decade ago it is certain that the patient's health is much better for it.

Undoubtedly the process of consolidation has been accelerated by events in other countries, specially in Germany and England. In both of these, the chemical industry has become dominated by large interests. Through mergers, engineered by the banking forces, the position to compete internationally has been materially strengthened and the financial forces of this country have appreciated this fact and have acted accordingly. As time goes on, the struggle for international supremacy in the chemical field will become keener and the victor will be the one with the most resources. While we do not have a counterpart of the I. G. of Germany or the Imperial Chemical Industries of England, in the United States, nevertheless the last ten years has produced an interesting group of combinations and unquestionably the end is not as yet in sight.

Some of the names which stand out most prominently in the merger are: Allied Chemical and Dye, American Commercial Alcohol, American Solvents, American Cyanamid, du Pont, Westvaco, Newport, Monsanto, Merck. Allied Chemical was the forerunner of the others and pointed out the distinct advantages derived from a well thought-out plan of amalgamation. In the Alcohol field the policy of consolidation has been carried out on a very extensive scale. American Solvents and Chemicals for example, resulted from the grouping of Rossville, Federal Products, Orange Grove Distillery, Seaboard Chem-

ical and the Industrial Chemical Manufacturing Company. American Cyanamid has acted as the focal point of a large group comprising principally Calco, Kalbfleisch, Selden, American Powder and about fifteen others. Du Pont has greatly strengthened its position with the purchase of Grasselli and Roesseler and Hasslacher. With the consolidation of Merck and Powers-Weightman-Rosengarten, Merck assured itself an even greater position of importance in the fine chemical and pharmaceutical field, Monsanto finally reached the Atlantic Seaboard with the acquisition of Merrimac, Newport has grown from a small phenol producer to an outstanding source of coal-tar products, and Warner through Westvaco is firmly entrenched in the southern field.

The services of the banker have naturally varied in each instance according to the individual requirements, but with all, the purpose has been identical—to provide additional capital for expansion both by acquisition of existing companies and further research to develop new products. To-day the leaders in the chemical field are ploughing back a large part of their earnings. Such action would not have been understood or permitted by bankers a relatively few years ago. To-day, financiers can readily perceive that both capital and interest can be compounded in the laboratory. No longer are chemical formulae, symbols, or processes mere gibberish to the man of money. He has studied and analyzed them. With the need of his services he has acquainted himself to the point where the chemical manufacturer can meet him on a common ground of mutual understanding.

Turning to specific examples we find that the phenomenal expansion program of the American Cyanamid Company was carried out by successive increases in the capital structure in the form of "Cyanamid B" common stock issued to the owners of stock of the acquired companies. Merck's acquisition of Powers-Weightman-Rosengarten did not involve new financing or public issuance of securities, as the owners of the latter company accepted both bonds and stock of the company formed to take over the assets of the old ones. Newport's expansion program has been a combination of outright purchases and exchange of stock financed by increases in the capital structure and by the creation of new subsidiaries. Westvaco has provided for additional expansion through a rather involved series of new incorporations and the creation of a holding company, the United Chemicals, Inc., financed by public subscription to new stock issues.

A study of the names of directors of a few of the prominent chemical manufacturing companies discloses the following bankers and men of finance: Air Reduction Company, P. A. Rockefeller, R. W. Goelet;

Sixteenth of a series of advertisements dealing informatively with principal industries of the country.
Reprints of this statement will be furnished on request to Halsey, Stuart & Co.

Products of Retort and Crucible

TIME was when adventurers sailed to the East over unknown seas for exotic spices, rare drugs, and prized perfumes. Today, the chemist finds these riches in the lowly coal-tar. With crucibles and test tubes, he produces myriad dyes and tinctures. He makes a form of sugar from sunflowers or sawdust. He prepares jasmine perfume, germ-destroying compounds, or poison gas from derivatives of coal-tar. He synthesizes imitation leather, celluloid, explosives, quick-drying finishes, and rayon, from cotton and wood pulp. He concocts synthetic foods, strange new substances, serums to counteract disease, industrial ingredients by the thousands.

Centuries ago, his forerunner, the alchemist, sought as eagerly, though less successfully, to turn the base metals into gold. Even earlier beginnings of chemistry have been found. The well-known philosopher, Democritus, of Abdera, who lived in the fifth century B. C., is reported to have spent his life in experimenting. At a later date, in the middle of the first century A. D., one Dioskorides, a physician of Anazarbai in Asia Minor, seems to have possessed a noteworthy knowledge of the preparation of drugs and of chemical manipulation.

The Modern Drama of Chemistry

The beginnings of the American chemical industry date back several generations. About the close of the eighteenth century, a number of enterprising manufacturers started to produce such staple or heavy chemicals as white lead, sulphuric acid, gunpowder and later to extract wintergreen, peppermint, and other vegetable oils. Along in the eighties and nineties of the last century, the electrochemical industry began to flourish, making possible the isolation of aluminum, the electrolytic refining of copper, and later of calcium carbide, as well as many other essential processes of modern industry.

The most rapid growth of the chemical industry has taken place since 1900—American production and export of chemicals increasing 500 per cent in value, and imports increasing 300 per cent in the first quarter of this century. Whereas less than half the imports at the beginning of the century were crude materials, the ratio has grown to three-fourths, showing a great increase in chemical manufactures in the United States. Today, chemicals and allied products constitute the country's fourth largest industry in value of output. From about one billion dollars in 1914, they have grown to approximately four billion in 1929. The industry is considered third in importance according to capitalization. At the same time, during the past decade and a half, the number of establishments has declined, evidencing the steady trend in the direction of centralization.

Chemicals and Allied Products

Estimated investment	$10,000,000,000
Estimated value of products	$4,000,000,000
Number of employees	765,611*
Total annual wages	$310,096,000*
Value of drugs and toilet preparations	$569,004,000*
Industrial chemicals	$548,536,000*
Paints and varnishes	$119,080,000*
Fertilizers	$190,585,000*
Coal-tar products	$106,056,000*

*From latest U. S. Census of Manufactures

But vastly more important than its magnitude is the part which chemistry plays in modern life. Since the great war, the development of organic chemistry through research, invention and manufacture has altered the very face of American industry through the discovery of new drugs, dyes, petroleum derivatives and commercial solvents. Nearly all our large industries depend upon its constant research—the manufacture of steel and other metals, cement, rubber, petroleum, paper, rayon and textiles, explosives, plastics, and many other commodities. Much of this service to industry is achieved through the utilization of a host of waste materials that would otherwise be of no value.

Products of the industrial chemist check forest fires and purify water supplies. Developments of the chemist exterminate mosquitoes, destroy pests and vermin and protect the hull of the ocean liner from barnacles. By means of explosives, he aids in the construction of railroads, waterworks and other huge engineering projects.

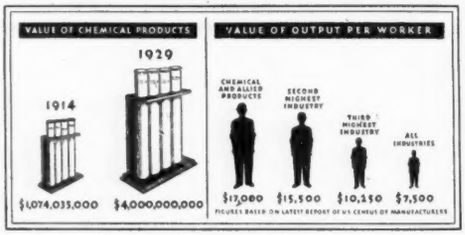
The chemist extracts nitrogen from the air—one of the greatest developments since the war in the production of fertilizers, explosives and lacquers. He produces in pure form such commercially essential gases as hydrogen, chlorine, carbon dioxide, neon and helium. He furnishes photographic supplies, tanning and bleaching materials, toilet preparations, alcohol and wood chemicals, and creates synthetic drug products which are proving valuable in the detection and prevention of disease.

Running the Gamut of the Spectrum

One of the most prolific sources of hidden chemical treasure is coal-tar. Once merely refuse, this substance is now the tap-root of dyes for practically all the colors of the rainbow. Until 1856, there were only about a dozen of pigments for the artist's palette; now he can choose from thousands. In addition, coal-tar is the basis for myriads of flavors, scents, medicines, and industrial chemicals. From it, the chemist concocts many thousands of distinct substances. The scientist can derive the fragrance of orange blossoms, the flavor of grapes, from coal-tar derivatives. He produces antiseptics, anaesthetics, synthetic adrenalin (that powerful stimulant for the human body), and saccharin, hundreds of times sweeter than sugar—all from coal-tar.

The American dye industry, practically non-existent before the war, has made phenomenal progress in recent years. From $2,247,000 in 1914, the value of American coal-tar dyes had increased over seventeen fold at the time of the latest census of manufactures. The United States is now one of the leading world producers of dyes. As an indication of what this development of the dye industry has accomplished, synthetic indigo, which is infinitely better than the natural product, is sold for some sixteen cents a pound today, instead of two dollars a pound when made from indigo plants of India. At a small cost, the chemist in his laboratory can now produce a royal purple, which formerly came from snail-like shellfish of the Mediterranean and cost several hundred dollars in a quantity sufficient for dyeing a pound of linen. Past dyes for silk and cotton textiles have been developed from coal-tar products which are resistant to the effects of sun, water and laundry chemicals to an extent never before made possible by natural or artificial dyes.

In large measure, industrial chemistry furnishes the raw materials for our cultural and material prosperity, and it furnishes them on such a vast scale that millions can now enjoy the treasures that were once the birthright of royalty. Making its contributions to practically every other industry, often in some essential material, industrial chemistry has sources of continued strength and expansion that are as fundamentally certain as the progress of American industry as a whole.



Financing the CHEMICAL INDUSTRY

THE chemical industry has evolved as a three cornered alliance between the professional chemist, the chemical engineer, and, of equal importance, the financier. Throughout much of its early history, the industry was hampered by difficulty in obtaining sufficient capital to finance its operations. While less so now than formerly, capital is required which must sometimes be content to grow slowly—that might not produce results for several years. This industry, more than most others, must depend upon scientific research not only for its inception but for its progress.

It has been the policy of many of the leading concerns to plow back into their business a part of their earnings with the result that many of them have accumulated substantial cash reserves which may be applied to further research activities without the necessity of offering securities to the public. Through consolidations, and otherwise, many of the companies have also succeeded in diversifying their products, which together with greater utilization of by-products, has resulted in earnings that are comparatively stable in spite of the fluctuations in general business activity.

Securities of leading chemical corporations have attracted wide public interest in recent years. While most such financing has taken the form of stock, the probability is that as the industry continues to grow in assets and earning power, chemical bonds will be more and more in evidence and in increasing favor with conservative investors.

THE PROGRAM THAT DOES MORE THAN ENTERTAIN

Increase your knowledge of sound investment by listening to the Old Counsellor on the Halsey, Stuart & Co. program. Broadcast every Wednesday evening over a Coast to Coast network of 37 stations associated with the National Broadcasting Company. Music by symphony orchestra.

8 P.M. Eastern Standard Time
7 P.M. Central Standard Time
6 P.M. Mountain Standard Time
5 P.M. Pacific Standard Time
Daylight Saving Time—one hour later

HALSEY, STUART & CO.
INCORPORATED
CHICAGO, 201 South La Salle Street NEW YORK, 35 Wall Street AND OTHER PRINCIPAL CITIES

A striking example of the advertising programs of well-known underwriters of securities educating the public on the investment possibilities of chemical securities

Monsanto, Philip Stockton; U. S. Industrial Alcohol, Jules H. Bache; du Pont, John J. Raskob and of course, Pierre S. duPont; Davison Chemical, Robert Garrett, United Chemicals, Inc., Mathew C. Brush; Newport, J. H. McCormack. In not a few instances the banking interests are represented by attorneys, as in the case of Merck, where Richard E. Dwight is a member of the ten-year voting trust, and the American Cyanamid Company, W. R. Perkins.

Banker Educates Investor

In performing the valuable services to the chemical industry that he has, the banker's position has really been but that of an intermediary between the chemical producer and the American investment public. It has been his job to educate the investing public as to the possibilities the chemical industry possesses for expansion and, of course, for a satisfactory return. That the banker has devoted serious efforts to this educational program is exemplified forcibly by the unprecedented success of the subscriptions to stock of our leading chemical manufacturing companies avidly bought up and in many instances oversubscribed by the general investing public. Taking for illustrative purposes Monsanto, we find that the authorized common stock has been increased from 100,000 to 500,000 shares, Mathieson from 200,000 to 1,000,000 shares, American Cyanamid from 1,000,000 to 2,400,000 shares and a $5,000,000 debenture bond issue. The total investment increase of the past few years of ten of the leading chemical companies totals in excess of two hundred million dollars. Most certainly the educational program has been a decided success. Admittedly most of the new financing has been accomplished by stock issues rather than through the medium of bonds, but the time is not far distant when the stability and earning powers of our leading chemical companies will be thoroughly appreciated by conservative investors and much of the future expansion in the chemical field will be provided for by bond issues.

Veritable phosphate famine is being experienced in North Africa. Stocks of producers, both at mines and in ports, are reduced to minimum so that in many cases vessels have been obliged to wait for cargoes. Companies are making all possible efforts toward increasing their production but are being held up by scarcity of manual labor. Contracts in force will be fulfilled but some time will certainly elapse before normal stocks are reestablished.

"Kalkammonsalpeter," or "Calmitro" produced at Oppau plant of I. G. Farbenindustrie contains approximately 20.5 per cent N and 35 per cent calcium carbonate. One half of nitrogen is contained in form of ammonia nitrogen and other half in form of nitrate nitrogen. Formula of nitrogen content is N H4N 03. Total output of this fertilizer is estimated at 3,000 to 4,000 tons nitrogen or 15,000 to 20,000 tons of commercial salt.

Soviet Institute of Applied Chemistry finds new process for production of metallic magnesium, metal obtained being much lighter than aluminum in weight. Plant capable of producing 50 tons this metal will be completed this year. Chloride of magnesium used in process comes from mud of Sak Lake in Crimea and carnallite of potash deposits of Solikamsk.

French Soda Chemicals

Production of soda chemicals in France is estimated in trade circles to have included the following quantities of the more important products:

	Metric tons
Bicarbonate	25,000
Bichromate	1,850
Bisulfate (liquid)	12,000
Carbonate	495,000
Caustic	33,000
Silicate (35° Be.)	45,000
Sulfate (Glauber's salt)	22,000
Anhydrous	55,000
Sulfite	1,000

Kuhlman, Solvay (through three subsidiaries) and Saint Gobain are the principal bichromate factors. Progil, Forces Motrices de la Garonne, Saint Gobain, and Bozel Moletra are the chief caustic soda and silicate of soda factors. Bicarbonate is controlled almost entirely by Solvay; sulfate by Kuhlman, Usines du Rhine, and Saint Gobain; bisulfite by Kuhlman, Bozel, Maletra, and Saint Dennis.

French exports of soda chemicals were as follows in 1928:

	Metric tons
Bicarbonate	7,350
Bisulfate	2,000
Saltcake	730
Carbonate (ash)	143,560
Caustic	32,500
Sulfates	12,500

In 1928 France imported 2,350 tons of chromate and bichromate of soda, according to the Department of Commerce.

Nitrocellulose Lacquers Exports

United States exports of nitrocellulose lacquers totaled 262,085 gallons, valued at $881,074, in 1929. Italy was the largest buyer. Shipments to the more important markets were as follows:

	Gallons	*Value*
Italy	37,470	$130,161
Argentina	23,748	79,703
Australia	18,489	59,391
Spain	15,157	52,308
Japan	14,620	47,709
Brazil	11,691	43,448
Germany	11,748	42,771
Union of South Africa	11,144	38,300
New Zealand	9,779	35,796
Philippine Islands	8,097	28,966

Air Liquide reports for 1929 net profits of 48,314,034 francs, compared with 50,630,940 francs in 1928. Dividend of 35 francs an ordinary share has been maintained on increased capital. Shareholders have authorized a 75,000,000-franc bond issue to redeem the outstanding 6% bonds. Contemplated issue of new stock has been postponed due to bill to suppress plural voting shares. Company's subsidiaries report increasing business, with extension of plants in France and other European countries, Canada and Japan, while Air Reduction Co., in which Air Liquide has substantial stock interest, remains in good condition.

Etablissements Kuhlmann, Paris, declared dividends for 1929 of 16 per cent on ordinary shares and 8 per cent on new shares, unchanged from 1928, but absorbing 41,800,000 francs as against fr. 32,800,000 in 1928, owing to increased capital. Company reports net profits for the year of fr.48,651,000, against fr.39,574,000 in 1928. Tonnage production of fertilizers increased 5.8 per cent and sales of mineral and chemical products increased 12 per cent. Capital and reserves total fr.634,000,000, against fr.462,000,000 in 1928.

Pioneer of the A

Russell R. Brown
President

Glenn Haskell, vice-president in charge of sales

A. A. Backaus, vice-president in charge of production

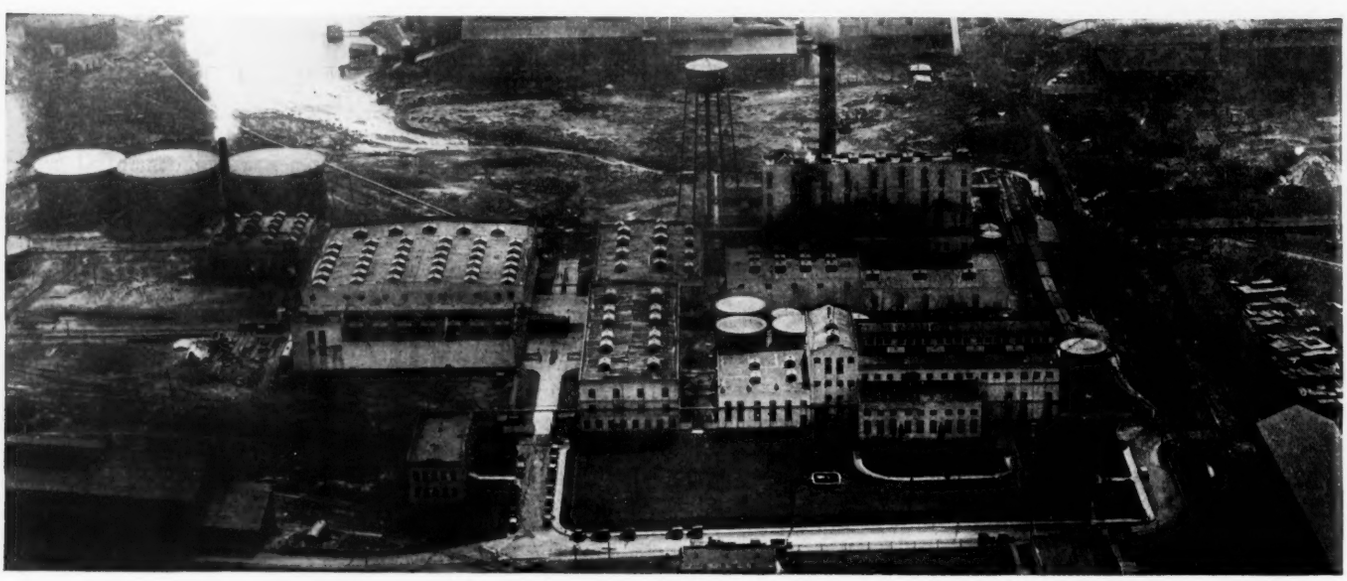
Alcohol, occupying a dual position, has required a generous spirit of cooperation between producer and government officials. U. S. Industrial Alcohol from its inception has pointed the way in this direction while making special grades available for industrial purposes.

ETHYL alcohol, or as it is more commonly called, grain alcohol, occupies the dual position of being used for potable purposes and also as a solvent and raw material required in industrial arts and chemical manufacturers.

In most countries from time immemorial, ethyl alcohol has been heavily taxed as a beverage; and it was not until 1906 that its use in industry in the United States free of tax was legalized. In that year, the National Congress enacted the Industrial Alcohol Law permitting the use of ethyl alcohol in industry, arts and science taxfree, when so treated as to be denatured and to be unpotable.

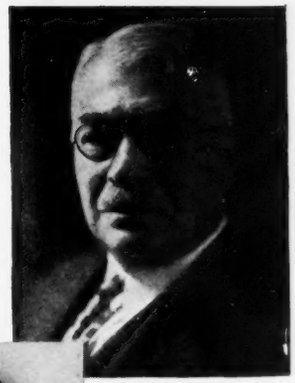
This tardy action of Congress was long after the passage of similar laws by other progressive nations interested in fostering industries using alcohol. England had legalized industrial alcohol as early as 1855 and Germany in 1879. All important countries had covering laws prior to 1890.

The failure to earlier lift from industries the burden of a high excise tax on this very necessary raw material undoubtedly was an important factor in retarding their growth. Too, the passage of the law in the United States did not at once wholly relieve the situation, for several years elapsed before sufficient



U. S. Industrial Alcohol plants

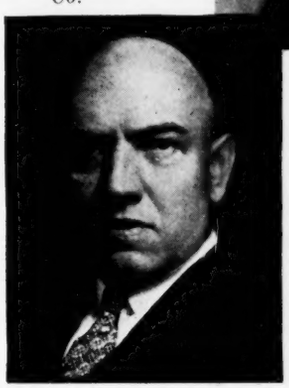
Alcohol Industry



Dr. B. Herstein, Chief Technologist

H. M. Daggert, Director of Purchases

This is one of a series of articles on the history and development of twenty-five companies who have advertised continuously in CHEMICAL MARKETS for the past decade and commemorates the tenth anniversary of the present ownership and management.



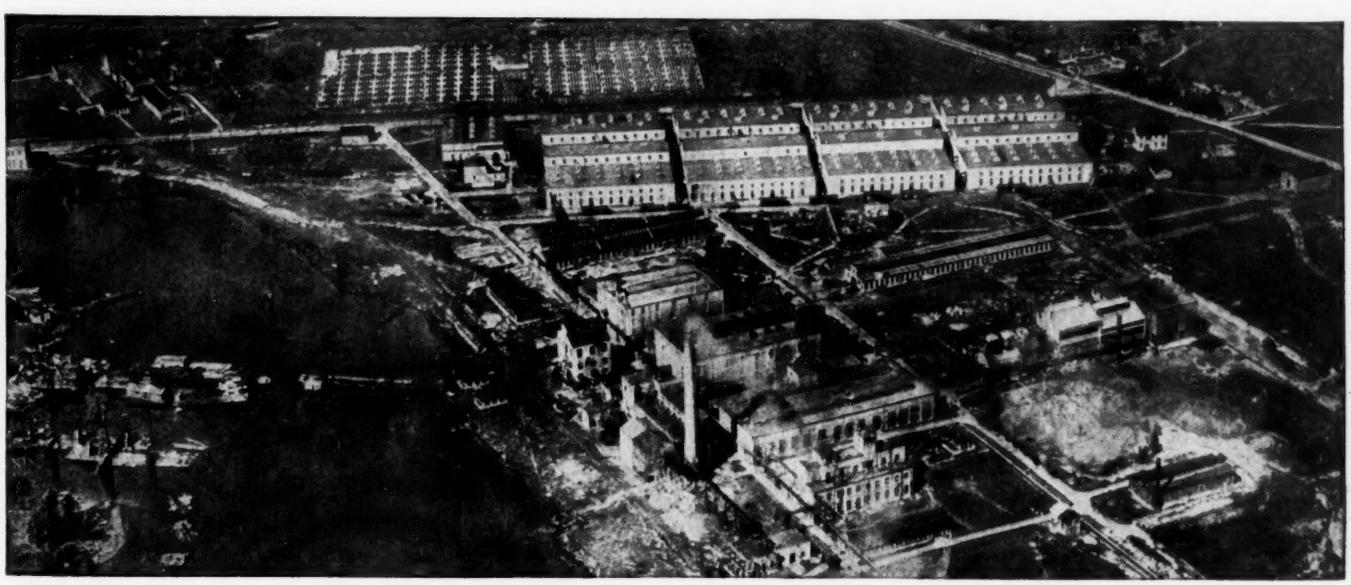
H. W. Haines, Sales Manager, U. S. Industrial Chemical Co.

and proper denaturing formulae were developed and authorized to permit all industries to avail themselves of taxfree alcohol.

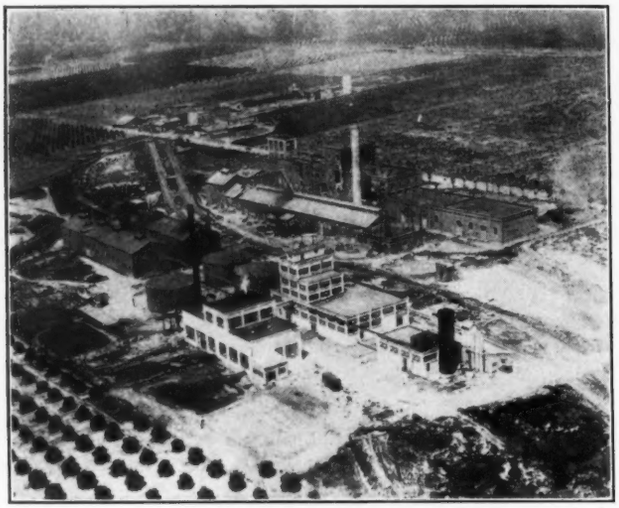
The name of the U. S. Industrial Alcohol Co. is linked and interwoven with the history of industrial alcohol. A study of the latter is the history of the Alcohol Company. Under the leadership of a series of able men the Alcohol Company has pioneered and blazed the trail of research and development.

The U. S. Industrial Alcohol Co. was organized and put into operation immediately following the enactment of the Industrial Alcohol Law. While it was brought into existence and fostered by the then principal producer of "spirits," it came under the control and operation of a staff trained and skilled in industrial practices and requirements.

At the outset while producing alcohol from grain at inland distilleries, the Alcohol Company at once began experimenting with the production of ethyl alcohol from other cheaper raw materials, especially molasses—then a waste from the extensive sugar-cane grinding plants of Cuba and the other West India Islands. Since ethyl alcohol is a product of the fermentation of sugar, it was logical that the more direct



Located at Curtis Bay, Baltimore, Md.



The Anaheim, Cal., plant completes a nation-wide manufacturing and distribution service program

process of fermenting the free sugar present in waste molasses would give to industry a lower priced product than the involved process of converting the starch of more costly grain to sugar and then fermenting the converted sugar.

Early molasses operations used the old stills and rectifying equipment removed from grain distilleries, but results demonstrated that while impure grain alcohol was acceptable to industry, molasses alcohol must be of high purity to be acceptable. The reason for this was that the esters and aldehydes of grain have a pleasant odor, and this characteristic odor present in the old time "spirits" was accepted as the characteristic mark of pure alcohol.

Largest Industrial Alcohol Plant

Hence, the problem of the Alcohol Company was not to produce a product equal to the then commercial grain alcohol but to produce an entirely neutral spirit with no odor except the ethereal nature of the pure chemical. Having attained this object, the Alcohol Company first re-equipped and rebuilt with modern stills and rectifiers the two plants then operating in New Orleans, and later in 1914, it started erection at Curtis Bay, Baltimore, Md., what was then and is now the largest industrial alcohol plant in this country, and very probably in the world.

In 1910, recognizing that in order to more widely serve industry, the processes in the manufacture of of industrial alcohol should be carried forward to produce intermediate materials, the U. S. I. created a subsidiary alcohol-chemical company, which became the U. S. Industrial Chemical Co., Inc., owned and operated by the Alcohol Company. The Chemical Co. also has erected and has in operation a large plant at Curtis Bay and it is the largest producer in this country of chemicals of alcohol origin, including the various acetates, ethers, acetic acid products, plasticizers and esters.

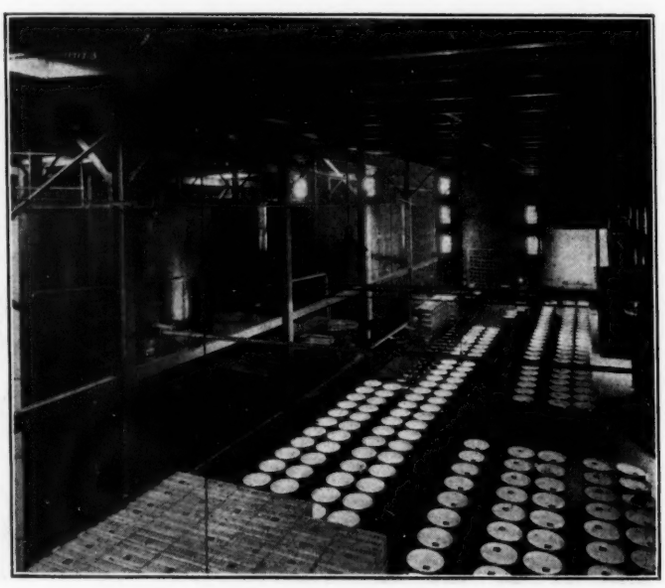
In the early days of industrial alcohol, the U. S. Industrial Alcohol Co. was the mainstay and ally of industry, and worked out the problems of proper and usable formulae for special uses acceptable to the Government and the industries; and it is stated that credit is due to it for the development of a great number of formulae that are now on the authorized list. This work was of great help to various industries, aiding them to obtain relief from the use of alcohol requiring payment of high tax.

Research Aids Development

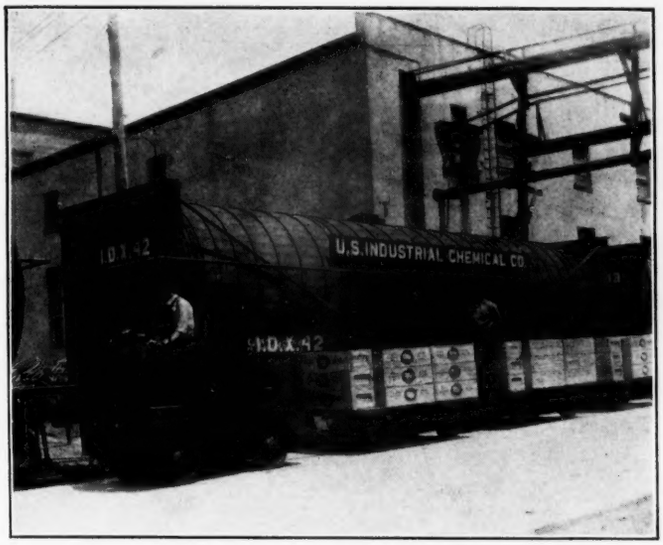
While it has aided in solving the problems of the manufacturing user it also has been in the forerank in development and progress in its own industry.

Realizing that its welfare and future growth lay with the prosperity and well being of the trade served, it has maintained an extensive research laboratory establishment operating separately from its producing plants, and at the same time a corps of development and research engineers and surveyors working within and without the producing plants to improve methods of manufacture and develop new products. This method of procedure enabled the Alcohol Company in the earlier years to radically reduce the cost to users of industrial alcohol by perfecting the refinement and rectifying of molasses alcohol, and in later years, has enabled it to produce anhydrous alcohol in unlimited quantities for commercial use. It also has to its credit the development and use of by-products incidental to the fermentation and production of the alcohol. Included in this group are carbon dioxide gas, which is produced at the time of fermentation, crude potash salts used for manufacturing fertilizers, obtained from the residue of fermentation, and also the use of the residue without treatment, as a binder for molding in foundry practice.

In the alcohol-chemical field it has developed processes for producing in commercial quantities a long line of chemicals, and it also has developed new and better ways of producing some of the older and more well known chemicals.



A Bonded Warehouse of U. S. Industrial Alcohol



U. S. I. products are shipped in tank-cars, drums and cartons, a complete service to industrial users of every description

The U. S. Industrial Alcohol Co. naturally has benefited by the foundation thus laid and by the effort put forth, and it has grown apace with the progress of the chemical industry in this country in the past ten years. It can rightly claim not only to be the pioneer and the oldest engaged in the industrial alcohol business, but it is also the largest. It now has operating distilleries on seaboard, on New York Harbor, Baltimore, Md., New Orleans, and Westwego, La., Anaheim, Calif., and has inland plants at Peoria, Ill., and Louisville, Ky., while maintaining storage warehouses and distribution depots at all key cities throughout the country. It owns and operates its own molasses gathering companies on the principal islands of the West India group and has fleet of tank-ships to bring the molasses from the islands to the distilleries. It operates its own line of tank cars to distribute its product in this country and to gather molasses on the islands at the cane-plants and bring it to the seaports.

Refined Chemicals
For Scientific Purposes

Your inquiry will receive prompt attention

U.S. INDUSTRIAL CHEMICAL CO.

U. S. INDUSTRIAL CHEMICAL CO.
27 William St., N. Y. **Broad 7330**

Reproduction of U. S. Industrial Chemical Co. advertisement in CHEMICAL MARKETS *in 1920*

As its business has grown, and in order to give more rounded service and stable delivery it has, over the period of the last four or five years, acquired the plants of the New Jersey Alcohol Co. in New York Harbor, the plant of the Crystal Chemical Co., near Los Angeles in California and the properties of the Kentucky Alcohol Corporation at Westwego, Peoria and Louisville, Ky.

The Company is now under the guardianship and management of Russell R. Brown, who became president in 1921.

He is one of the youngest major executives in the chemical industry. Through his sound judgment, keen executive ability, and his leadership he has consolidated the position of the company so that it is in a most favorable position to-day, with physical plants and equipment in sound condition and increasing goodwill.

German Chemicals in 1929

Germany's chemical production during 1929, was estimated at approximately $1,000,000,000. About one-fifth of the total production was accounted for by artificial nitrogen carriers and one-eighth by dyes.

While the 1929 production was an increase over that of 1928, the increase was not as great as in former years. It is believed that the present production in Germany is about equal to the demand.

German chemical exports in 1929 were higher than ever before, being valued at about $327,000,000. Imports were valued at $75,000,000, leaving a favorable balance of $252,000,000 in the country's chemical trade.

Conspicuous technical progress was made throughout the year in the German chemical industry, especially in nitrogen fixation, hydrogenation of oil, and fine-chemical preparation. Concentration and rationalization were factors contributing to the higher profits realized.

The dye trust continued to extend its international affiliations and penetrated foreign markets to an even greater extent than before, according to the Department of Commerce.

A significant feature of the chemical industry is the growing progress of American chemical processes in penetrating the German market. These methods include an American nitrocellulose-lacquer process now going into operation, a perfected ammonia oxidation process, an advanced catalytic ammonia synthesis, the vanadium-oxide contact process of making sulfuric acid, a process imparting a wood-grain surface to metals and other bases, and a process for making plastics from formaldehyde condensation.

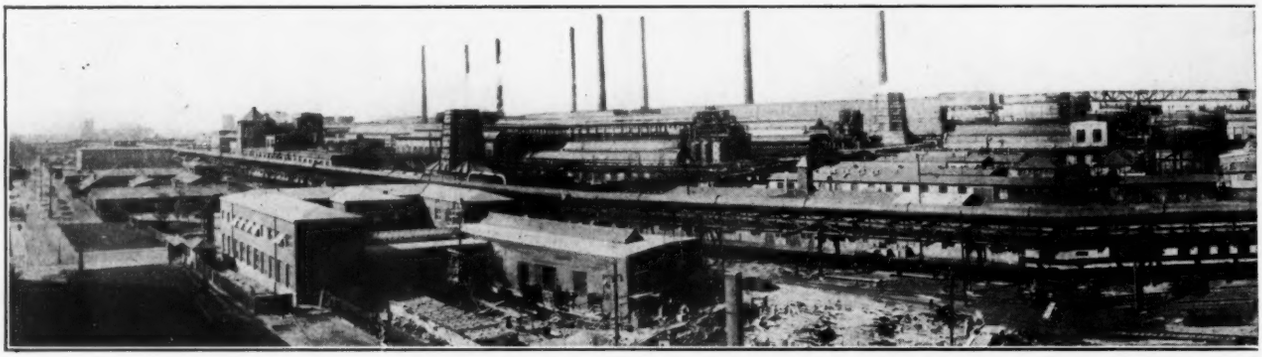
In addition, the American flotation system for metal extraction, the Cottrell precipitator, etc., have long been used in Germany, according to the study.

Consolidated Mining and Smelting Co., of Canada, subsidiary, Canadian Pacific Railway, advises entire stock subscription offer that expired May 15 was taken up. Proceeds will be used to take care of further developments, balance to improve liquid position.

Acieries Electriques d'Usine Uckange in Ueckingen, Paris, is organized by Forges Acieries de Nord et Lorraine, with initial capital of 10,000,000 francs, later to be raised to 50,000,000 francs. Participating are Societe d'Electrochemie, as well as Kuhlmann and Pechiney has been secured.

France abolishes 3½ per cent ad valorem import tax on nitrate in order to benefit French agriculture.

African Explosives & Industries, Ltd., will erect a synthetic ammonia plant at Modderfontein, South Africa, and plants for the oxidation of ammonia at Modderfontein and Somerset West, the total to cost £500,000.

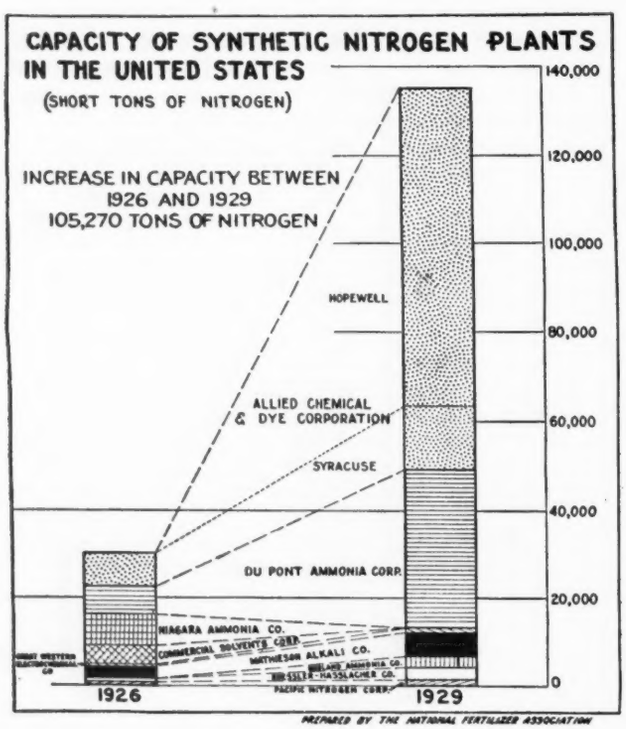


Nitrogen

NITROGEN again occupies the center of the stage. Chemists, industrialists, financiers, and governmental heads are consulting and cooperating in a common cause. Nitrogen cartels and international price agreements are features of the daily news.

On July 21, 1930, the President of Chile signed the new nitrate law establishing the Nitrate Corporation of Chile, or "Cosano" as it is already commonly called. Once the single and supreme source of nitrogen, the path of Chilean nitrate in the last fifteen years has been beset with increasing difficulties. Aided by an artificial stimulus of a World War, synthetic processes have been so improved and tonnages so increased that a critical competitive situation has arisen.

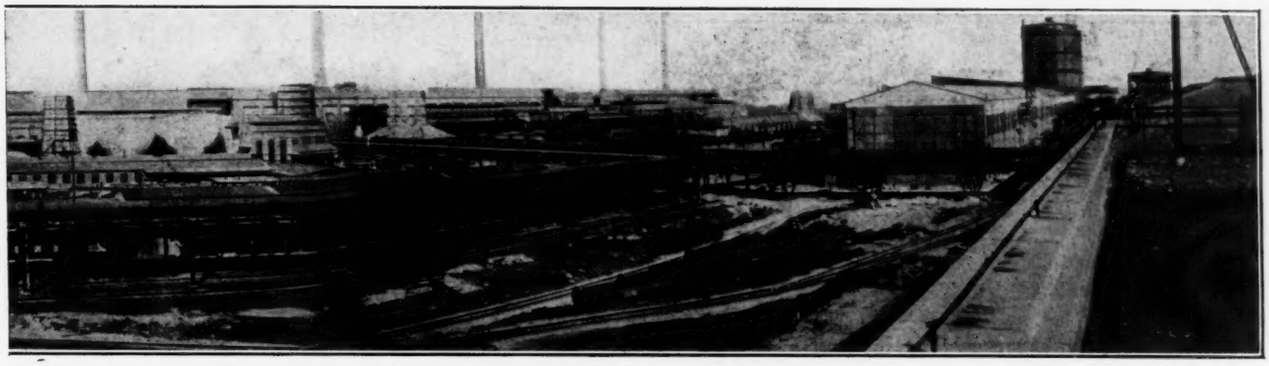
In an attempt to improve and consolidate the position of natural nitrates, the Chilean government has instigated the formation of a public company. Briefly, the important features of this move are: (1) The inclusion of the Guggenheim interests and the complete adoption of the "Shanks" system at all producing points, (2) The renunciation by the government of all export taxes in lieu of a fixed income for the first four years of operation. After the expiration of this period, the government hopes to be compensated out of dividends paid on the fifty per cent of the stock it holds in the corporation, (3) The government has agreed to deed the company all available nitrate lands, to remove all tariffs on machinery and supplies, to accept a fixed tax of six per cent on all profits, and to assist in the formation of centralized distribution and sales agencies.



This move brings about a complete consolidation of Chilean producers, and is hoped will lower costs and present a united front in competition with synthetically produced nitrogen.

On July 30, 1930, the foremost nitrogen producers of Europe, meeting in Paris, arranged to decrease nitrogen production among themselves to an extent of 30 to 50 per cent for the coming year. Immediately following the conclusion of this agreement, negotiations were started with the Chilean interests and on August 14 in Berlin a complete accord was reached providing for decreased production and stabilized prices again for a period of a year. This international cartel embraces producers whose combined tonnages are rated at 80 per cent of the industry and is to operate in all countries with the exception of the United States.

The first question that logically arises is to what degree, if any, are we dependent upon foreign sources of nitrogen. We are all too familiar with the situation as it existed at the time of our entrance into the War. As late as 1919, the total production of atmospheric nitrogen within the continental confines of the country amounted to but 276 tons. Five years later, the



I. G. Synthetic Nitrogen Plant at Merseburg, Germany

An International Problem

atmospheric nitrogen fixed amounted to 11,000 tons, in 1926, 26,000 tons and last year the figure had increased to 84,000 tons and an estimated capacity of approximately 135,000 tons. The total production of nitrogen from all sources amounted to 273,000 tons in 1929. Our total productive capacity to-day is approximately 324,000 tons, exclusive of nitrogen derived from such organic sources as tankage, etc. Natural organics are rather difficult to estimate but numerous responsible sources place the figure around fifty thousand tons making a grand total of 374,000 tons of nitrogen.

The disposition of nitrogen in 1929 was as follows: mixed fertilizers, and nitrogenous materials employed alone as fertilizer, 322,600 tons; in Porto Rico and Hawaii, 32,000 tons; and for industrial purposes 124,000 tons, totalling 477,000 tons and leaving a possible deficit between consumption and capacity of 103,000 tons.

It is unlikely that the international cartel will attempt to raise prices in this country to any marked degree despite our debit balance of over 100,000 tons. Any such action would immediately result in the erection of additional plants in this country. The completion of the Hopewell plant addition added 58,000 tons in 1929, and with our present operating knowledge as a background, we can very easily build and equip any additional facilities within a short space of time as might be required in any such emergency.

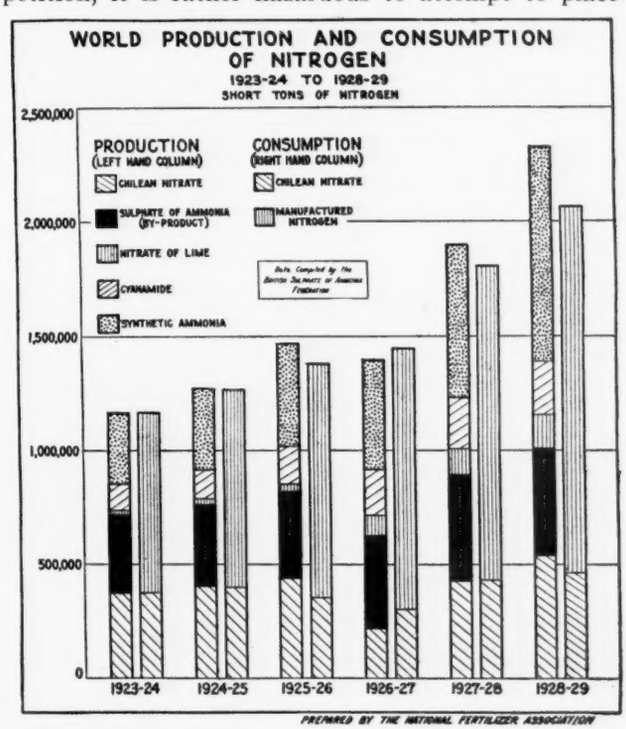
A more logical sequence of the international agreement might be a concerted attempt to employ this country as a dumping ground for surplus European synthetically-produced nitrogen or the allotment of this country to the Chilean interests by the syndicate or a combination of these two policies.

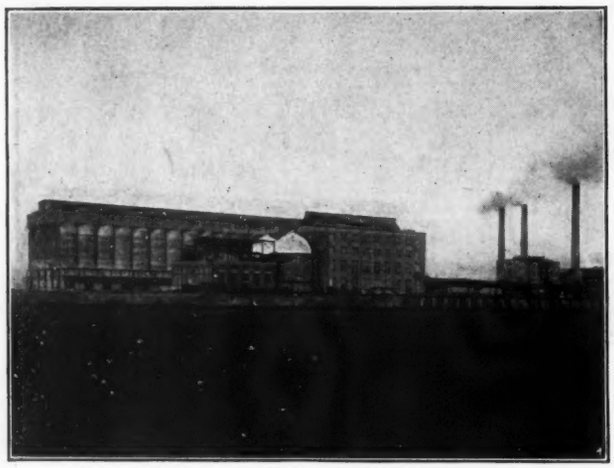
Under any such arrangements domestic producers would then be forced to meet in open competition the combined resources of the rest of the world and, to borrow a pithy slang expression, "that would be just too bad—for somebody." The final results of ruinous competition is rather difficult even to attempt to prophesy.

In all probability a rather happy medium will be struck with consumers the actual gainers through substantially reduced prices.

The total tonnage of nitrogen imported into the United States in 1929 amounted to approximately 233,000 tons made up of Chilean nitrate 158,000, cyanamid 43,000, and the balance of various sources. This figure represents nearly half of our total consumption, if we exclude from consideration our exports of 55,000 tons. Time alone will tell what effect the new alignment will have; but in taking these figures for analysis at a later date, due regard will have to be made for depressed conditions during 1930.

Assuming for a moment a period of greater competition, it is rather hazardous to attempt to place



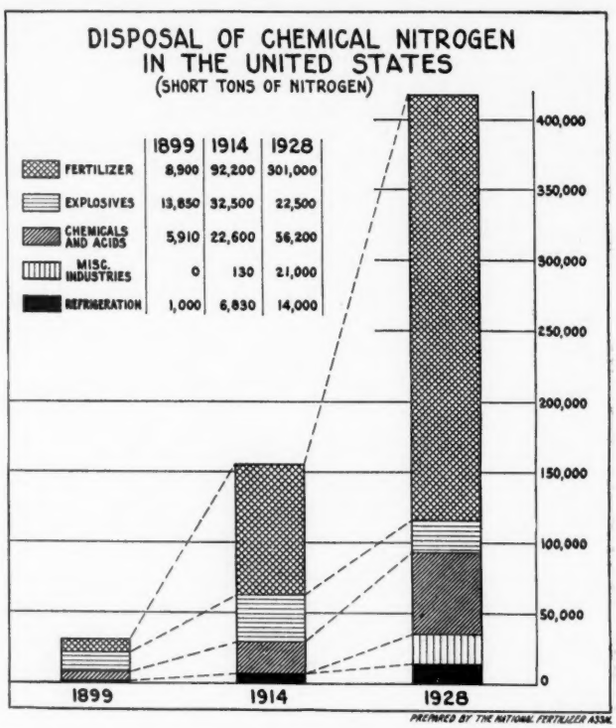


Exterior view of the I. G.'s calcium nitrate plant at Oppau, Germany

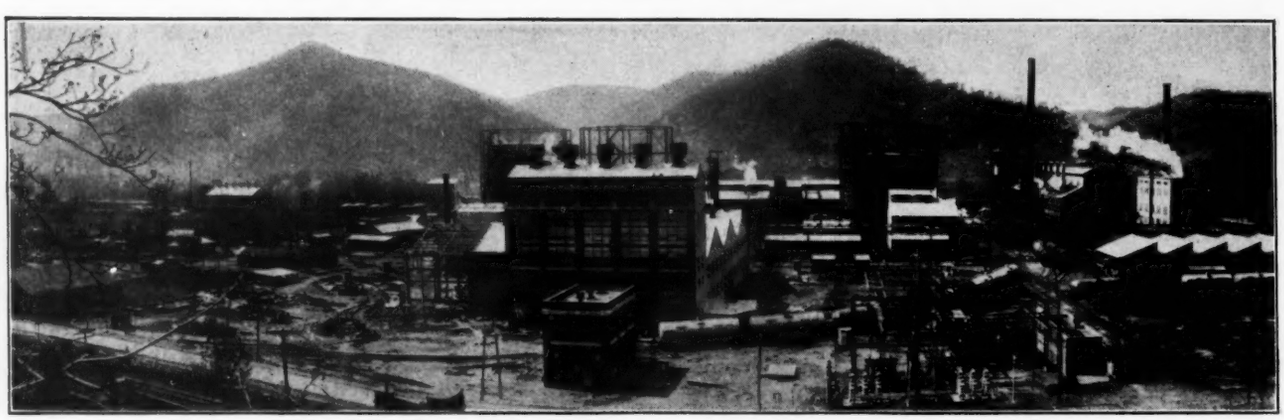
the respective positions of the contestants. It is rather definitely believed that notwithstanding cheaper labor conditions abroad, our synthetic producers are in a favorable competitive position, taking into consideration the obstacle of freight rates confronting the foreign producer. Competent authorities agree that synthetically-produced nitrate of soda can be manufactured for $25 a ton at points close to or at consuming centers. Sulfate being a by-product is in the most favorable position of all. No doubt improved refining methods, the elimination of the export tax, and the use of more modern sales methods will tend to place Chilean nitrate in a better competitive position than it has recently enjoyed, but such important items as transportation and handling cannot be very radically reduced further. It would appear then that any serious price cut to gain additional tonnage into this country on the part of either the foreign synthetic producers or the Chilean interests would result in but a temporary assumption of the balance of power.

Indications are not lacking that we are on the threshold of a much wider application of nitrogenous products in the industrial field. A definite possibility exists, for example, that ammonia may find employment on an extensive scale in the petroleum industry. We are rapidly approaching the point where a very important economic relationship is going to exist between the neutralizing coefficient of ammonia on the one hand and other alkalies on the other for chemical means will be devised to control the possible formation of side compounds in reactions where such might occur.

As consumption increases, further refinements will be made in existing manufacturing processes and perhaps new developments still more revolutionary in character than the present ones will be introduced. No industry other than petroleum can point to such tremendous strides in the last ten years either in point of actual production or in methods of manufacture. The hydrogenation process, with its basic generation of hydrogen, may prove to be the starting point for a new synthesis. No one can foretell the future, but one thing is certain—that nitrogen, holding as it does



the key to man's existence, will continue to draw the spotlight of the scientific and industrial world and the interests of governments.



Du Pont Ammonia Company plant at Nitro, W. Va.

The Pulse *of* Chemical Business

"What the leaders of industry think about business conditions is more important than all the theories of the statisticians and prophecies of the forecasters added together."

Recognizing the truth of the above statement CHEMICAL MARKETS invited a number of leaders in the various branches of the industry, executive, sales, and purchasing, to express their viewpoint on present conditions and the probable trend in commodity prices. A thorough examination is the first step of the physician in effecting a cure. Collectively, these statements from executives in the industry afford CHEMICAL MARKETS readers an opportunity to feel the pulse of chemical business.

LEONARD J. BEALE

President, Pennsylvania Salt Manufacturing Co.

Many serious conditions attend the basic situation of commodity prices. Over-production, which is not only a complaint in this country but may perhaps be considered as world-wide, has resulted in the reduction of commodity prices to such a point that a still further lowering must result in so-called liquidation of labor, which presents many serious difficulties and would require years to successfully accomplish.

On the other hand, in these days when many students of business conditions see the dark side of things, we must not under-estimate the tremendous fundamental strength of America. With our position of leadership in the banking and business world, which seems yearly to be growing more pronounced; and with the wonderful advantages that still exist in the richness of our natural resources, it seems hard to believe that after the passing through of the present period—the length of which no one can accurately estimate—we shall not again see a general tendency towards strength all along the line, with an accompanying gradual increase in commodity prices.

G. W. McCARTY, JR.

Vice-President, Ashcraft-Wilkinson Company

It is generally admitted that commodity prices are at or near the bottom. It is certainly a fact that most commodities, agricultural as well as otherwise, are below the cost of production.

It is my opinion that the commodity market offers a very much better opportunity for investment at the present time than some of our other speculative markets which have been so liberally patronized during the past few years.

FREDERICK W. WHITE

President, Mutual Chemical Co. of America

I have seen business so much worse than it is to-day, I think it is fairly good by comparison and I also believe that the present tariff bill is a very good one, and as I read in the newspapers every morning about the improvement that is going to take place in the Fall,—after this continual reiteration, I am impressed, the same as most people will be, and are believing that we are going to see better times before Winter.

In comparing shipments during the last two or three months, with those of 1928, they are good, and as far as the comparison with 1929, they have not fallen off as much as we had anticipated they would.

EDWARD H. CARUS

President, Carus Chemical Co.

Babson predicted a declining tendency in commodities lasting about 20 years, that is from 1920 to 1940. The situation would be very simple if every dollar did the work of two.

The general wage scale in Europe has been reduced below the European pre-war basis, while ours is actually 50 to 100% higher than our pre-war scale. The unemployment situation in European countries such as England has been severe for several years, and we have been fortunate in escaping the situation as long as we have.

The fundamental or theoretical cause of the decline may be laid to the simple fact that the gold supply of the world is not sufficient to finance the volume of business which has developed. Also the boom on the stock exchange has probably drawn much money and many good executives away from productive enterprise. The London stock exchange operates on credit while the New York in cash. It would seem beneficial to trade and business enterprise if American stock exchanges were on a credit basis, so they would not use up available bank credit.

The speculative instinct is most valuable when applied to new developments. When standard well established stocks boom on Wall street, the speculative instinct does not seek new fields and is wasted in paper transactions.

There have been severe commodity declines in the previous century, but the present one is indeed severe in bulk items, such as silver, sugar, coffee, and most of the other metals. The downward adjustment is painful but the sooner it is made the quicker conditions will improve.

I do not see special benefit from optimistic predictions, and many of these have not materialized. I would not expect the automobile or building industries to see as good a year as 1929 for some time to come. Some industries, on the other hand, are booming now—the putter business for example—supplying the Tom Thumb golf courses.

The most serious long time depressing influence is the report that our population is about to come to a standstill and that the total number of children in the lower grades are now already actually less than they have been. This indicates that consumption of commodities in the United States in future will not increase as fast as it has in the past, when our population growth has been probably the most rapid ever recorded.

There is no use in feeling blue, and plenty of work of all kinds to be done.

WILLIAM H. ZINSSER

President, William Zinsser & Co.

We have always been bulls on the future of the United States when it comes to stocks, business, economic wealth or what have you. We believe that shellac, ships, sealing wax and everything else is selling below what it should to-day and should show a handsome profit when the turn comes.

Even the last few weeks we have noticed a decided improvement in business. We have had increased inquiries and orders. Factories seem to be taking heart, wheels seem to be spinning around again. Whether this is a flash in the pan or not, no one knows. Before the present depression there was an axiom that Wall Street was six months ahead of business. I do not think this will be the case this year. Wall Street is so scared that if we have to wait for them to hearten business, we will have a long wait. We think it is more likely that business will pick up and hearten Wall Street and that whereas the Street has been discounting profits and progress they now will not believe profits until they see them.

We look for consistently better business this Fall, but we think it will be 1931 before the real turn comes, and when America will again assume the economic leadership of the world and lead in another prosperous era.

E. C. ECCLESTONE

President, E. C. Ecclestone Co.

Prices, generally speaking, have declined to a very low point, and with limited stocks, any increase in business, which surely will come, should create a lively demand in all lines with a consequent upward trend in prices. It would therefore seem that now is the opportune time to take advantage of the low prices existing and be ready for the demand when it comes. Personally I am hopeful for the future and believe that we soon will see an active demand in all lines.

CHARLES G. MERRELL

President, Wm. S. Merrell Company

In discussing commodity prices there must always be made a distinction between the long term and the short term view. I am disposed to agree with Mr. Babson that over the next decade there will be a gradual decline in prices but that there will be many ups and downs along the way.

Taking the short term view, which is just now of greater interest, I would say that the prolonged fall of commodity prices has reflected a readjustment between supply and demand which should be about completed. There are two additional factors of major importance which may exert a continued unfavorable influence on prices:

(a) Gold continues to flow from the country. Will the increased demand for gold cause further world-wide disturbance in prices?

(b) Will foreign competition for world trade, aided by lower labor costs, finally require lower wage levels here, narrowing the spread between standards of living here and abroad?

So much conflicting opinion has been recorded on both questions, that it is almost necessary for one to base his conclusions largely on faith.

With respect to the first question, the Federal Reserve Bulletin for June says: "There appears to be no evidence in the available information that price declines in recent years have at any time reflected a general shortage of banking reserves, or of gold."

While there is much conflict of opinion on this point, we may choose to believe with the Federal Reserve that price difficulties in the recent past have not been due to gold, and have confidence that these same difficulties can now be adjusted without undue influence from that source.

With respect to the second question, some adjustment of wages in certain industries may be called for. That we are facing the necessity of a general decline in wages has yet to be proven. Are present returns to our workers too high? Consider the present average individual annual income, stated to be $671.43, in relation to the wants, in the light of one's own experience, that that income will satisfy.

If present wage levels are not too high in themselves, are they still too high to permit us to compete? We have passed thru many decades with American wages and American standards of living higher than those of competing countries.

It is true that we are under a greater necessity to sell abroad now than at any time in the past. It is also true that the steady improvement everywhere of transportation and methods of communication, together with radio and the moving picture, are bringing to all people a knowledge of new wants which must be satisfied. Education in the art of consumption goes on. Worries as to over-production can be but temporary.

Standards of living abroad must inevitably rise. Our favorable position to contribute to progress elsewhere certainly cannot be construed as an argument for lowered standards here.

We believe we are close to stabilization of commodity prices.

HARRY L. DERBY

President, The Kalbfleisch Corp.

Considering all the conditions, the decline in a commodity price was to be expected, as after all, the law of supply and demand is the ultimate factor in price determination.

Prices of some articles have reached a sub-normal level, and these conditions will correct themselves under business stimulus. However, American industry is equipped to produce in unprecedented volume and it seems probable to me that manufacturers must increase efficiency and so far as possible stabilize operations, with the objective of the lowest attainable cost.

As commodities move in the greatest volume at attractive price levels, it is through such a course that the country may look for continued prosperity.

J. WRENCH

Sales Manager, Industrial Chemical Sales Co.

High commodity prices, generally speaking, are usually reflective of conditions when Capital and Labor are both costly. Supply and demand can and does affect commodity prices in specific cases. Excessive supply usually involves over-production which, in essence, is expressive of selfishness by those manufacturers demanding more than their fair share of business.

In my humble judgment, inherently there is nothing disturbing economically in general low commodity prices, provided the partners of modern business—Capital and Labor—can be assured of a fair return on what each contributes to their common commercial activities.

General low commodity prices indicate a condition of depression either in mind, or in fact, and I venture to say the existing depression is one more of mind rather than fact. To-day, we are facing a lack of faith in the future—and why? You must turn to the craze of stock gambling that might truly be said to have reached every home in the country. Any gambling is a form of selfishness, with the object of seeking to acquire easy money. Opportunity occassionally offers to do this but only at the expense of many others less fortunate, whose losses are exaggerated by the inflation of values that they themselves help to create. The inevitable crash cannot be prevented but it follows that, literally, millions must retrench and cease from buying—a movement that spreads just as widely and as effectively as the "eddy from a stone thrown into a pool." Commodity prices cannot withstand any such economic upheaval and thus must move with the ebb of the economic tide.

Dissipation of any kind creates obligation and as liquidation proceeds, the future takes on a brighter aspect. Restoration of confidence begins by means of which the wheels of industry are accelerated, gradually

reaching normal. The fact still remains that there are 125 millions of us possessing individual and by far the greatest purchasing capacity in the world, and the banks have a big stock of surplus money waiting to work.

WILLIAM H. ADKINS

Ass't Treas. & Purchasing Agt. Givaudan-Delawanna

Commodity prices in the Aromatic Chemical Industry have not been reduced excepting in a few cases, and while the hand to mouth buying of consumers still exists, business has not suffered materially so far.

While business is gradually improving from month to month, it will require possibly six to eight months before it gains real momentum because the public will be over-cautious in making expenditures of money and the unemployment situation will have to be adjusted before normal business expansion takes shape both here and abroad.

JOHN J. HECKER

Purchasing Agent, Gillespie-Rogers-Pyatt Co., Inc.

It is my opinion that the commodity markets have about reached their low, and will show gradual improvement, which will be noticed by the end of this year. However, should retail trade improve noticeably, the retailer with limited stocks, will demand prompt shipments; this will revert back to the manufacture of raw materials, reduce unemployment, and thereby make further demands for immediate consumption. If this should happen, I believe, prices will rise too rapidly to be sound.

JOSEPH MORNINGSTAR & CO., INC.

President, Morningstar, Nicol, Inc.

My own belief about the present business situation is that the depression has very nearly run its course. Every thinking man realizes that we must expect a similar situation every so many years. It is a pity that we do not prepare for these depressions as their origins, symptoms, and cure are so obvious. A well conceived plan of unemployment insurance embracing old age pensions, would in my opinion do more to obviate future depression than any one single thing. If a few of the leaders of industry would lead the way, it would soon be an accomplished fact.

G. M. HAYWARD

President, Thompson-Hayward Chemical Co.

It does seem to us that the present condition is to a great extent more a state of mind than anything else. While there is no question that the steady and continued decline in practically all commodities means a hardship and an actual loss to the producer whether he be a grower of agricultural products or a manufacturer, nevertheless as I see it the dealer and middle-man has not been hard-hit as his stocks have been held at a minimum for many months and we believe the same is true almost without exception with the consumer.

As everyone knows, it is a rare buyer who will purchase anything more than actual needs and above necessities, on a declining market, but after the advance once starts and gets under way it seems to us we will have passed the present period of uncertainty and get back into normalcy once more.

AUGUST KOCHS

President, Victor Chemical Works

As long as wage scales, freight rates and other factors of cost remain at present levels, any reduction in commodity prices in the chemical industry will mean, in most cases, an inadequate return on the capital invested, and often, an actual loss.

In our opinion there can be no general and permanent decline of prices of chemicals, unless there be a reduction, also, in the cost of all services. Such a development would change the country's entire price structure, and is unlikely. There may be merchandise sold below present values, but in our opinion, instances of this kind will be exceptional. In the long run commodity prices cannot be lower than efficient management of shop and of distribution, and a proper return on investment will warrant.

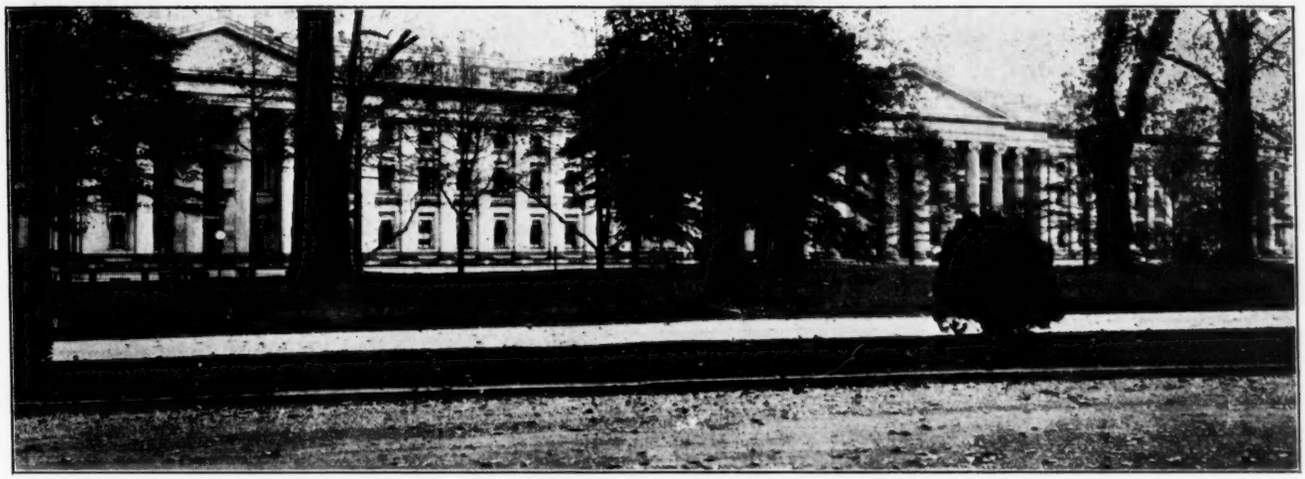
Public Service Commission, N. Y., approves new freight rates of Lehigh Valley Railroad on soda (silicate of) carload, minimum weight, in barrels or iron drums 40,000 pounds, in bags or in bulk 50,000 pounds, and in tank cars subject to Rule 35, from Buffalo to Suspension Bridge 6c per cwt in tank cars and 8c per cwt in other than tank cars, effective June 15, 1930. Of Pennsylvania Railroad, same commodity, same classifications, from Evenezer to Suspension Bridge (on Lehigh Valley), and from Evenezer to Suspension Bridge (on Erie) 6c per cwt in tank cars and 8c per cwt in other than tank cars, effective June 15, 1930.

Anglo-Chilean Consolidated Nitrate Corp. places several large orders for electrical equipment for new nitrate plant at Lautaro Nitrate Co., including one with International General Electric Co. for twenty-six combination trolley and storage battery locomotives, one for three industrial combination, gas electric and trolley locomotives, and two with Westinghouse Electric for motors and starting equipment.

Calcium chloride for elimination of coal dust explosions in mines will be tested as soon as a mine owner can be found to cooperate, according to Miller D. Hay, chief mine inspector, Oklahoma City. A solution will be placed in the mine to draw coal dust particles to the floor from the air. Initial cost is expected to be greater than of rock dusting or watering, but frequent applications will not be necessary, it is thought.

New Syas plant, in Leningrad district, Russia, for producing bleached cellulose, is completed. Operations will begin in September and annual output will be 40,000 tons bleached cellulose.

Imperial Chemicals, Ltd., and Soviet credit terms agreement limits individual credits to 800,000 pounds sterling as total amount outstanding over six months.



Treasury Building at Washington

Industrial Alcohol Regulations

A Review and a Preview

THE proposed revision of the regulations governing the manufacture and sale of industrial alcohol contain numerous changes and if finally passed, will present a rather serious problem to the manufacturer, dealer and user. It is imperative then for those who will be directly affected by the new regulations to study them carefully now, so that while they are in the formative stage suggestions and criticisms may be made to the Departments of Justice and Treasury, through the advisory committee appointed by the Bureau of Industrial Alcohol.

It was the intention of the Departments to declare in force the new regulations by the first of September. However to allow the industry an opportunity to express its reaction to the proposed new provisions, the Bureau of Industrial Alcohol has postponed the effective date indefinitely.

Dual Control

A detailed examination of the regulations indicates a closer scrutiny of users of industrial alcohol, a greater tightening up of the supervision of the department on the initial issuance and continuance of withdrawal permits and a possible dual control by both departments. With the re-organization of the prohibition enforcement machinery, the Department of Justice will assume direct charge and responsibility for prosecuting illegal use and users of alcohol while the Treasury Department through its Bureau of Industrial Alcohol will continue to take charge of the permissive phases of the enforcement act.

The new regulations while more voluminous and quite different in the choice and arrangements of words and phrases do not, except in two new practices, deviate greatly from the former, or to be more correct, the present enforcement measures.

In these two practices, however, a rather radical departure is contemplated not of course in the law itself, as that is not subject to alteration in this manner, but in the interpretation of the law, and in the contemplated provisions which would appear as an abortive attempt to change the original intent of the basic principles of the enforcement act.

The fundamental supervisory powers of the government are derived from Section 34, Title 11, of the National Prohibition act which states that, "All records and reports kept or filed under the provisions of this Act shall be subject to inspection...by...any peace officer in the state where the record is kept, and copies of such records and reports...may be introduced in evidence, etc."

This is a reasonable demand and one with which neither the legitimate manufacturer nor user will quarrel. Records which are mandatory should be available for scrutiny by proper authorities designated by and acting under the legal provisions of the law.

Greater Powers Given by New Act

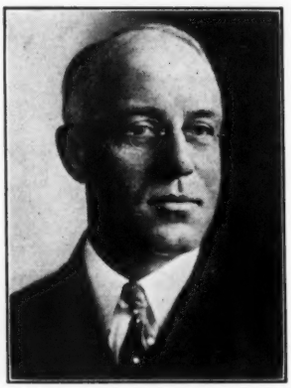
Under the suggested revision a much wider scope of activity is contemplated. Without any change whatsoever in the National act the officials charged with its proper enforcement acting under proposed regulations will be vested with power, obtained through a previously signed stipulation permitting detailed investigation not only of records but opertions, processes and premises as well. Such power would appear to be autocratic, arbitrary, and dangerous and render the manufacturer and consumer alike to possible serious infringement of inherent rights, rights which they still lawfully possess under the basic enabling act.

Such provision will present the dangerous possibility of commercial espionage even though such possibility

might seem remote and improbable. Many of the processes employed in the alcohol industry are secret, many are patented and all of the companies employ methods which have resulted from extensive research and the investment of thousands of dollars and which are rightfully theirs. They should be free from even the remotest danger of having these processes disclosed through the operation of the regulatory provisions of the law.

Broad Powers of Bureau

The revision in this respect is of such a revolutionary character that it does not seem wise to clothe the Bureau with such broad and unlimited power notwithstanding its past and present beneficial and benevolent attitude and close co-operation with the legitimate interests in the industry. Speaking of the proposed regulations, Dr. Doran is quoted as having said that, "I don't see anything in the proposed regulations that would hamper or restrict industry provided they are administered with good sense. Our intention in the Treasury is to run the thing as in the past to keep the business clean, and to back all business. We have a very benevolent attitude toward the business and we expect to maintain this attitude."



Seymour Lowman, Assistant Secretary of the Treasury in charge of Industrial Alcohol Regulations.

The last few words in this statement focus direct attention on one of the important weaknesses of the regulations. What the policy of the present enforcement administration has been and is at present is no indication or guarantee of what its successor might chose to interpret as its governing policies. Once the precedent is permitted the industry will undoubtedly discover tremendous difficulty in instituting any revision should the attitude of the department or its personnel change in the future.

Restrictions on Producers

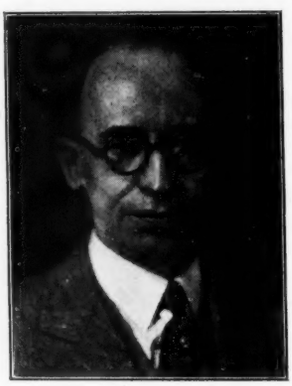
A further attempt to broaden the original legislation is made by requiring the Applicant-Permittee to agree in writing to certain restrictive and limiting clauses before a permit for withdrawal is granted. Manufacturers generally speaking of toilet-water preparations will be forced to pledge that—"The essential oils and chemicals used...must be of such a quality and character that if distilled...such oils and chemicals will come over...in such quantity as to render the distillate unfit for beverage purposes." Producers of ethyl acetate, solvents and thinners likewise must guarantee that "The permittee agrees that the sales of thinners, solvents and ethyl acetate manufactured under this permit are restricted to only those corporations, firms or individuals who use these products for their own manufacturing purposes, and only in quantities according to their own requirements, and not in any event for resale as such," and also "In the event of sales of thinners, solvents or ethyl acetate by the permittee to jobbers, wholesalers or dealers, the permittee agrees to assume entire responsibility for all sales by the jobbers, wholesalers or dealers."

Even a superficial examination of these two statements will show a very apparent inconsistency of thought. The first specifically prohibits the resale of these commodities to intermediaries and limits definitely their application to any other than the original manufacturer or a consumer whose processes are such that they destroy the chemical properties of the proscribed solvents and thinners.

Burdening the Manufacturer

It is obviously unfair to hold a respected producer of these articles entirely responsible for the legitimacy of the acts of the dealer and is burdening the manufacturer unduly to compel him to assume enforcement powers of a regulatory nature which he does not actually possess by law and which are plainly the duty of the Bureau itself to enforce.

Further inconsistency is evidenced by the fact that if the governing body, the Bureau, feels that such prior agreements are necessary before the issuance of a basic permit then they must acknowledge that the present law is inadequate in that such restrictive clauses are not expressly provided for. In everyday language it would appear that the department is asking the prospective user to subscribe to something that they feel they have no definite authority at present to enforce and that they wish to employ his "voluntary" agreement as the sole basis for possible future prosecution.



James M. Doran, head of the Bureau of Industrial Alcohol.

A further departure from present accepted practice is proposed in altering the character of the withdrawal permit. Heretofore a basic permit was granted to the user of industrial alcohol to engage in a particular line of business and indicated the Bureau's stamp of approval of the consumer while the withdrawal or secondary permit was essentially of the nature of a bookkeeping record and an authority for the transfer of material from one point to another. Under the new regulations the withdrawal permit will assume practically the same status as the basic permit and subject the user to the same degree of investigation at the end of each 90-day period.

Lastly the industrial consumer will be compelled to account each ninety-day period as to the exact quantities withdrawn and employed in manufacturing processes and should he through cancellation of orders not use the proscribed allotment an immediate report must be lodged with the Bureau.

Unquestionably the Bureau of Industrial Alcohol is moving most cautiously in the matter and very wisely has broadcast the proposed regulations so that the industry itself may have the opportunity of indicating its approval or disapproval. The entire question is one of major importance and worthy of intensive study and discussion before definite action is taken. That numerous changes will be made in the final draft of the regulations appears to be quite certain.

Glanzstoff, whose entire capital is now owned by Aku in Holland, closed 1929 with loss of 58,315,000 marks, whereas for 1928 it paid 18% dividend on 75,000,000 marks in common shares. Depreciation of stock investments amounted to 53,000,000 marks and is held responsible for result. This was rendered necessary by decline of Bemberg shares to 20 from approximately 100, and those of Associated Rayon, American Glanzstoff and American Bemberg. All Glanzstoff investments are now written down at latest market prices and reserves are reduced correspondingly from 78,000,000 to 20,000,000 marks. Aku dividend prospects this year are not very good because if Glanzstoff pays a dividend for 1930, Aku will receive proceeds only in 1931. Moreover, though Aku and Glanzstoff are now selling rayon at rate of over 10,000,000 marks month, profits are small. Some agreement with I. G. Farben in Germany and Chatillon in Italy is considered indispensable but has not yet been reached.

Texas polyhalite is studied by United States Bureau of Mines, Department of Commerce, at Rutgers University for possible application in industrial extraction of potash. Preliminary estimates show that average cost of producing 90 per cent potassium sulfate by either of two processes developed will be $16 a ton at plant, making it possible for potash from Texas polyhalite to compete with imported products if reasonable freight rates can be obtained. Muriate of potash may also be manufactured from same salt. Polyhalite may also be developed as a fertilizer by itself, it is estimated.

Extensive alterations are being made by the Imperial Oil Co. in its plant at Imperoyal, near Halifax, Nova Scotia, particularly with a view to the installation of a unit for cracking crude petroleum by the hydrogenation process. About $800,000 will will be spent in the improvements.

Imperial Oil Co. is a subsidiary of the Standard Oil Co. of New Jersey, which has acquired the rights to the hydrogenation process of the I. G. Farbenindustrie in all countries except Germany. Crude petroleum will be obtained chiefly from the operations of the Standard Oil subsidiaries in Venezuela.

Pittsburgh Experiment Station, United States Bureau of Mines, tests Pittsburgh air daily for year to find sulfur dioxide content, discovered to be heaviest in October, with a maximum of 1.1 parts per million. Average amount found during 304 days was 0.16 parts per million.

Phosphate content of phosphatic sands now rejected as waste by Florida washing plants may be recovered to extent of 35 to 45 per cent by gravity concentration methods, Bureau of Mines investigation shows, in concentrate above minimum commercial grade.

The Industry's Bookshelf

The Condensed Chemical Dictionary, compiled and edited by the Editorial Staff of the Chemical Engineering Catalog, 551 pages, $10.00, published by Chemical Catalog Co., New York.

A second, completely revised and enlarged edition of this reference volume containing a large amount of essential data regarding chemicals and other substances used in manufacturing and laboratory work.

Planning and Control of Public Works, 242 pages, $3.00, published by National Bureau of Economic Research, New York.

A report of the committee on recent economic changes of the President's Conference on Unemployment, treating of municipal and Federal plans and control of construction, and including the report of Leo Wolman of the National Bureau of Economic Research.

The Colloid Chemistry of Rubber, by Paul Stamberger, 80 pages, $2.00, Oxford University Press.

The subject-matter of a series of lectures given at University College, London, on colloid chemistry and colloids, the colloidal properties of rubber, lyophile, colloids, compounding, compounding ingredients, rubber substitutes, synthesis of rubber, vulcanization, devulcanization, and recent views on the structure of rubber.

International Control of Raw Materials, by B. B. Wallace and L. R. Edminster, 479 pages, $3.50, Brookings Institution, Washington, D. C.

A study of the problem of government control of exports, showing objects and results of control, and describing the policy of the United States in regard both to its own raw materials and to restrictions imposed by other countries. Chapters are devoted to the Chilean control of sodium nitrate, the Japanese camphor monopoly, the Franco-German potash combine, British export restrictions on rubber.

Industrial Arbitration, by Lord Amulree, 233 pages, $4.50, published by Oxford University Press, New York.

A consideration of the problem of industrial arbitration in Great Britain, with a background history of the settlement of wage disputes from early times in England.

The Physics and Chemistry of Surfaces, by Neil Kensington Adam, 329 pages, $6.00, published by Oxford University Press, New York.

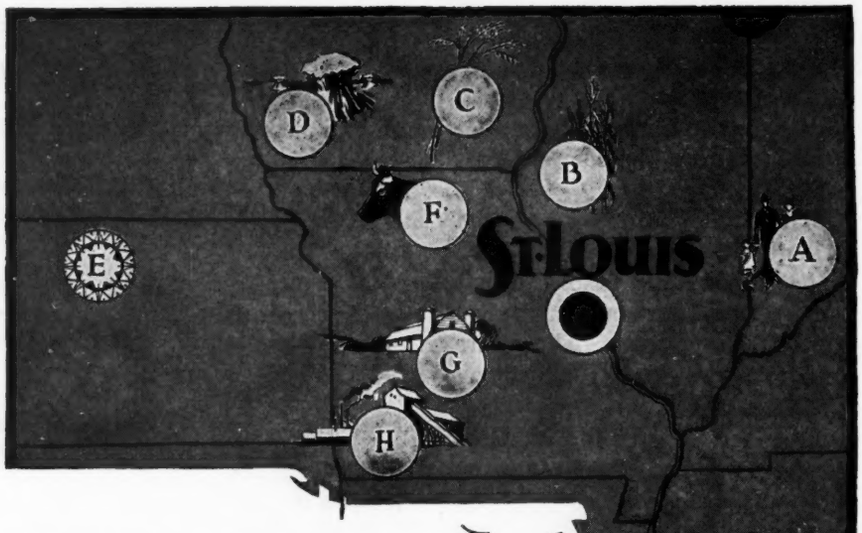
A discussion of the theory of surfaces from the standpoint of molecular theory, with an indication of some of its manifold industrial applications.

Annual Survey of American Chemistry, Volume IV, by C. J. West and Associates 531 pages, $4.00, published by The Chemical Catalog Co., Inc., New York.

The periodical publication has come in three years to fill a very real need with its authoritative summaries of the current progress in important chemical fields.

A Brief Introduction to the use of Beilstein's Handbuch der Organischen Chemie, by Ernest H. Huntress, $1.00, 35 pages, published by John Wiley & Sons, Inc., N. Y.

A concise English explanation of the system of classification of organic compounds developed by Prager and Jacobson for the "Organic chemist's Bible."



A—Center of population of the United States
B—Corn Center of the United States
C—Oats Center of the United States
D—Wheat Center of the United States
E—Geographical Center of the United States
F—Cattle Center of the United States
G—Center of Farm Production of the United States
H—Lead and Zinc Center of the United States
I—Cotton Center of the United States

These Circles *tell a* Magic Story

ONE naturally thinks of chemical industry as concerned with minerals and their treatment. Yet science goes much further today. Chemistry is utilizing every sort of raw material for new and better products.

Consider the lowly corn-cob. Until quite recently it had little use, except as fuel. Today it gives us "furfural", that strange, dynamic compound with a hundred uses. Some chemists turn it into high explosives. Others make from it the lacquer that coats our motor cars.

The corn center of all the nation is but a short distance from St. Louis. So, too, among other vital production centers, is the cotton center of America. Mark how, from one-time worthless cotton "linters", chemists have lately woven the romance of Rayon—the new silk-like fabric that all the world was seeking.

A nearby circle spots the wheat center of the country, another the oats center,—each with their vast possibilities in processed foods. Still others mark the cattle center, the lead and zinc centers, and the center of farm production. Just eastward is the national center of population.

What a strategic location for industry is this! Here, where such wealth of resources and advantages augment the untold mineral treasures awaiting development.

St.Louis

National Center of Centers

Encircled by primary resources

Unlimited Chemical and Manufacturing Possibilities

DEPT. C-1 . . . . . THE INDUSTRIAL BUREAU OF THE INDUSTRIAL CLUB OF ST. LOUIS.

Coal-Tar Derivatives in the Last Decade

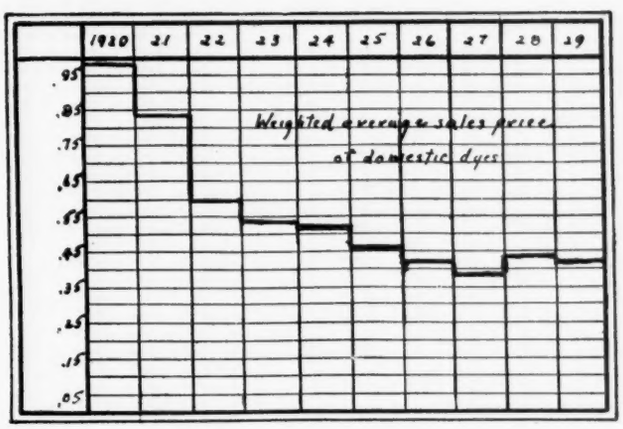
INDICATIVE of a substantial growth in the coal-tar, dye and intermediates industries in this country during the past ten years production figures of all three show important increases. With increased production and in sympathy with the trend of commodity prices generally, the sales value of dyes and intermediates have declined.

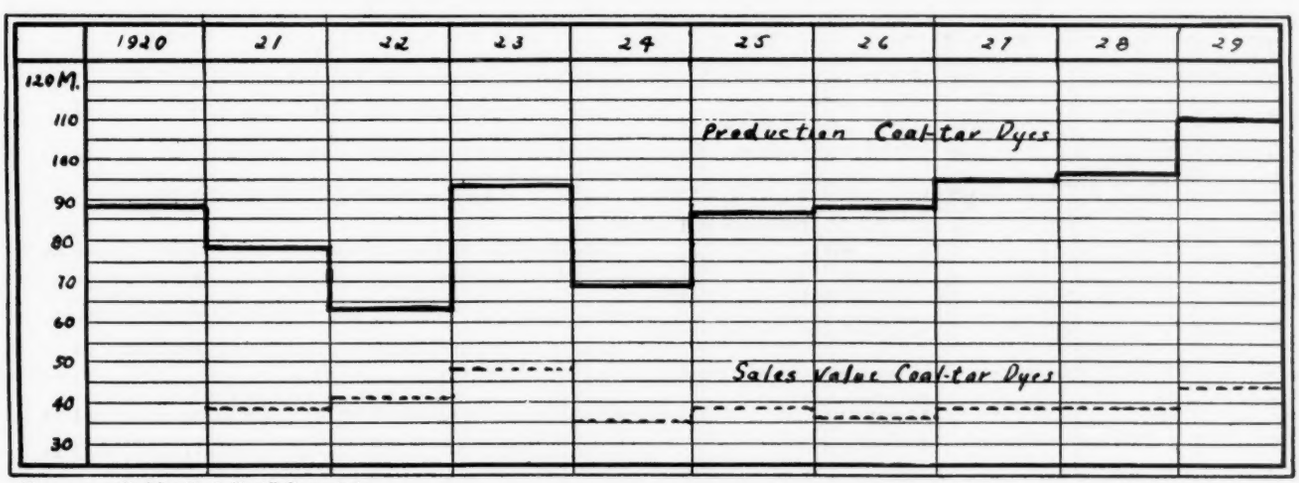
The output of intermediates in 1929 was 349,226,000 pounds while the figure for 1920 was but 257,726,911 pounds, an increase of over 35 per cent. In between these years occurred the severe deflation period of 1921, when production fell to 70,899,912 pounds, a decrease of 73 per cent in quantity from 1920. The average price of intermediates dropped from thirty-seven cents to twenty-five cents in 1921. The last four or five years have witnessed a gradual improvement in both production and sales but accompanied by a perceptible lowering of the unit of value to the significant figure of nineteen cents in 1929.

Increased Dye Production

This trend is even more pronounced when the production of dyes and their prices are considered. In 1920, 88,263,776 pounds of coal-tar dyes were manufactured and the 1929 production shows a decided increase, 110,195,000 pounds. However the weighted average sales price which is obtained by dividing the total value of all dyes by the total quantity sold indicates a lessening by more than half from the high wartime prices existing throughout the first year of the last decade, the exact figures being ninety-nine cents in 1920 and forty-two and a half cents in 1929.

These figures, rather dry and difficult to assimilate easily, nevertheless picture the emancipation of the United States from almost complete dependence upon foreign sources of supply in the very short space of ten years, truly a remarkable performance and one of which every one connected with the industry may be justly proud. Starting with plants and equipment erected for the production of phenol for wartime purposes the leading producers of coal-tar intermediates and dyes have insured this country by successive additions to plant, equipment and knowledge from any future possibility of outside domination or control. When one considers that the coal-tar industry and its various ramifications, dyes, lakes, perfumes, pharmaceuticals and photographic chemicals were in their infancy in the United States but fifteen years ago it is not difficult to believe that this particular branch of the chemical field has undoubtedly contributed the greatest advance, most certainly it has and continues to be the most spectacular. In fifteen years the value of our coal-tar products have increased seventeen fold. What other field in or out of the chemical industry has witnessed such tremendous expansion ?





Figures supplied by U. S. Tariff Commission

Progress in Coal-Tar Chemical Industry

More Than 225 Different Intermediates Produced During 1919 Compared With 140 in the Previous Year

By GRINNELL JONES, Chief Chemist, United States Tariff Commission

THE Geological Survey has recently reported that the production of by-product coke and the by-products obtained therefrom during the year 1919 shows a slight decrease, as compared with 1918. This was due to labor troubles in the steel and coal mining industries and to railroad congestion. There appears to have been a small decrease in the amount of tar distilled and a large decrease in the output of pure benzol, and especially of pure toluol. This means that a much larger proportion of the output was sold as mixtures for solvent purposes or as motor spirit instead of in the purified condition. Of more significance in considering the future of the coal-tar chemical industry is the fact that the productive capacity of the by-product coke ovens in the United States increased 17.2 per cent during 1919. There is no question that, with the possible exception of anthracene, adequate supplies of the fundamental raw materials of coal-tar origin will be available from American sources for the growth of the industry.

Output of Anthracene

In the case of anthracene considerable progress has been made during the past year, but the problem of securing adequate supplies is still unsolved. In 1918, the anthracene content of the crude anthracene produced was about a quarter million pounds, but very little of this was refined. In 1919 the output of crude anthracene was about three times the 1918 record, and a much larger fraction of it was refined than in 1918. Although this shows great and encouraging progress, nevertheless, a much greater increase in output must be secured before there will be enough American anthracene available to supply the American demand for alizarin and vat dyes. It may be roughly estimated that the 1919 production of crude anthracene contained less than one-fifth of the amount of anthracene which would be required to supply the American needs. The fundamental difficulty is not primarily an actual lack of anthracene in the tar or purely technical difficulties in its recovery, but rather the fact that its removal leaves the pitch so hard that it does not find a ready market under American conditions. In England and Germany large amounts of hard pitch were used for the briquetting of coal dust and coke breeze, but this industry is very little developed in the United States. Any method of recovering anthracene which seriously disturbs the marketability of the other larger fractions of the tar, especially the pitch, would make the anthracene so expensive that the dyes derived therefrom could not be made on a competitive basis.

Research Work In Progress

This problem of securing supplies of anthracene adequate in amount and at a cost which is not prohibitive is perhaps the most important and most fundamental problem still awaiting solution in this industry. Whether it will be solved by the tar distillers or by the development of a synthetic process for making anthracene or anthraquinone cannot be determined at the present time. Active work on this problem along both lines is now under way and the progress already made is encouraging.

As was to have been expected, there was a large decrease in the output of several intermediates needed primarily for explosives. This is most noticeable in the case of phenol which showed an enormous production, —106,000,000 pounds,—in 1918, but fell to less than one and one-half million pounds in 1919, nearly all of this being obtained from coal tar. A less conspicuous case is the decrease in the output of monochlorbenzol from 20.5 million pounds in 1918, to a little more than 4 million pounds in 1919. There was also a considerable decrease in the output of several intermediates required for making dyes used for army uniforms; for example, there was a 25 per cent decrease in the output of m-toluylene diamin, which was used for making a khaki dye for cotton uniforms and a 90 per cent decrease in metranitranilin, which was used for making a khaki dye for wool uniforms. These examples mean merely that chemical skill and chemical materials were no longer needed to make explosives or other military supplies, and henceforth could be devoted to our peace industries. It is my purpose to-day to give some typical examples of the progress of the American coal-tar chemical industry under peace conditions.

Making New Intermediates

A comparison of the intermediates produced in 1918 and 1919 shows a considerable increase in the number of intermediates and substantial increases in amount in many cases. In 1919 there were about 225 different intermediates produced, against about 140 in 1918. The new intermediates are, of course, comparatively difficult to make, but were needed for dyes and medicinals of the better class. Among these new intermediates may be mentioned brombenzol, dibenzylanilin, dichloranilin, nine new sulphonic acid derivatives of naphthol or naphthylamin, betaoxynaphthoic acid, and five new anthraquinone derivatives.

As a rule, the intermediates for which there is the largest demand and whose manufacture had been well established by 1918, show comparatively little change in 1919. Thus, nitrobenzol gained 11 per cent, the 1919 output amounting to about 42.5 million pounds; the output of aniline was about 24.5 million pounds, a gain of 1 per cent; paranitranilin, with an output of about 1,300,000 pounds, lost 1 per cent, and betanaphthol, with an output of about 5 million pounds, dropped 6 per cent. The output of H acid increased from a little less than 3 million pounds in 1918, to about 4 million in 1919; on the other hand, the output of dimethylanilin fell off about 15 per cent, amounting to 3.5 million pounds.

Production of Leading Products

There are many notable increases in the output of individual intermediates, especially noticeable in the case of intermediates derived from toluol or from anthracene. The output of U. S. P. benzoic acid increased from about 173,000 pounds in 1918, to over 600,000 pounds in 1919, with a drop in valuation from $3.07 to 74 cents a pound. Orthotoluidin increased from 639,000 to a little over a million pounds and para-toluidin, from about 200,000 pounds to over 575,000 pounds, with a drop in valuation per pound to nearly half the 1918 figures. The general increases in the output of

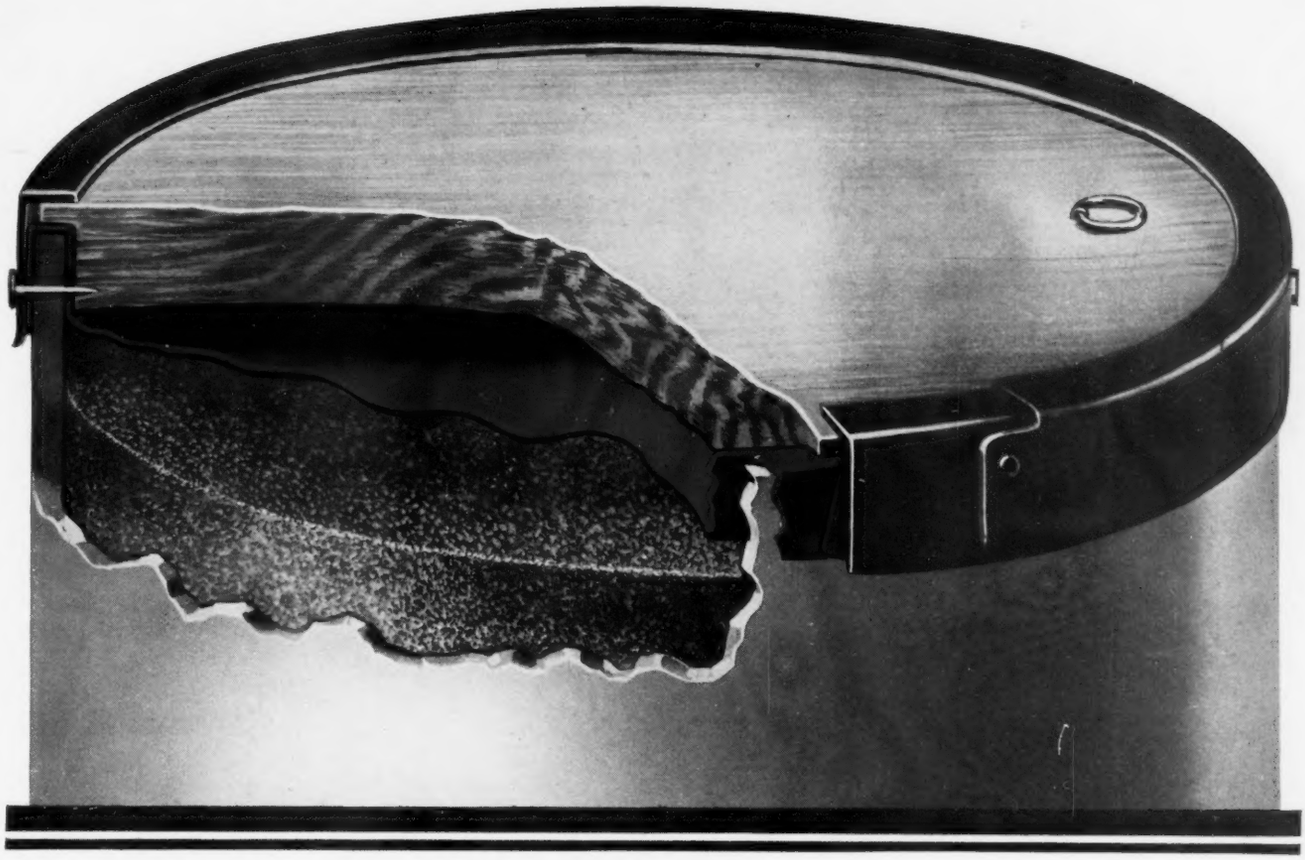
The past ten years has seen a gradual reduction of coke produced by beehive ovens and a definite trend towards the use of by-product coke-ovens. By the end of 1928 the proportion stood at 91.7 per cent. Because of this the coal-tar industry has had available increasing amounts of raw materials to draw on. Previous to the World War this country was woefully extravagant of the natural resources at hand. In foreign countries, notably Germany, this wasteful and inefficient method of coal distillation had been superseded entirely fifteen years ago. It is small wonder then that Germany was in a most strategic position both in war and peace time. Learning a dearly purchased lesson from the unpreparedness of 1917, American manufacturers have not alone captured the control of the domestic markets but have also demonstrated a growing ability to compete on successful terms with foreign producers in the markets of the world.

Dyes Exports

For the first two years of the last decade we were unable to engage in foreign commerce in dyes but in 1922 slightly over eight million pounds were sold. By 1929 the consumption of American-made dyes abroad reached the respectable figure of thirty-four million, a gain of 400 per cent, valued at $7,276,618. Our exports consist principally of indigo, sulfur black and low priced bulk dyes. Our importation of dyes, originating almost entirely from Germany and Switzerland, continue to increase both in volume and in invoice value. The preliminary figures for 1929 are 6,410,355 pounds with a foreign invoice value of $5,359,058, representing a rise of about twenty per cent by quantity and twenty-four per cent by value over that of 1928 and an increase of about ninety-five per cent by quantity and a decrease of less than one per cent of value from the first year of the decade just ended. While these importation figures may appear impressive they represent but approximately five per cent of the total sales in this country in 1929.

The Leading Intermediates

In the field of intermediates, naphthalene continues to lead in tonnage produced, but the newer commercial adaptations of phenol are rapidly forcing this commodity to the forefront. Aniline oil continues to hold third place in the production figures, while phthalic anhydride is perhaps from the viewpoint of production and consumption the most spectacular, now occupying fourth position on the list.



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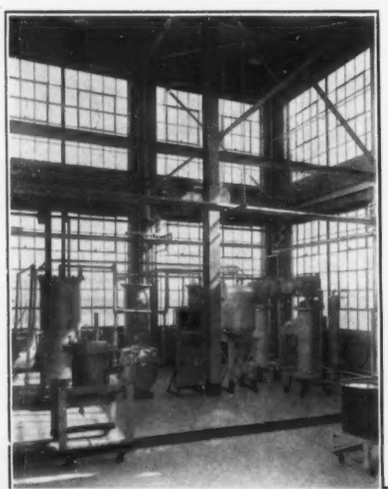
CHEMICAL
Photographic Record

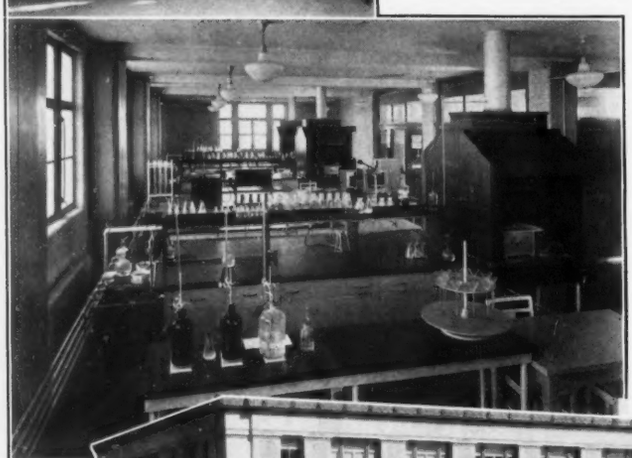
This is what happened recently in New York City when one gallon of denatured alcohol, four kegs of sodium bisulfate of soda and forty pounds of nitrophenol were mixed in a kettle

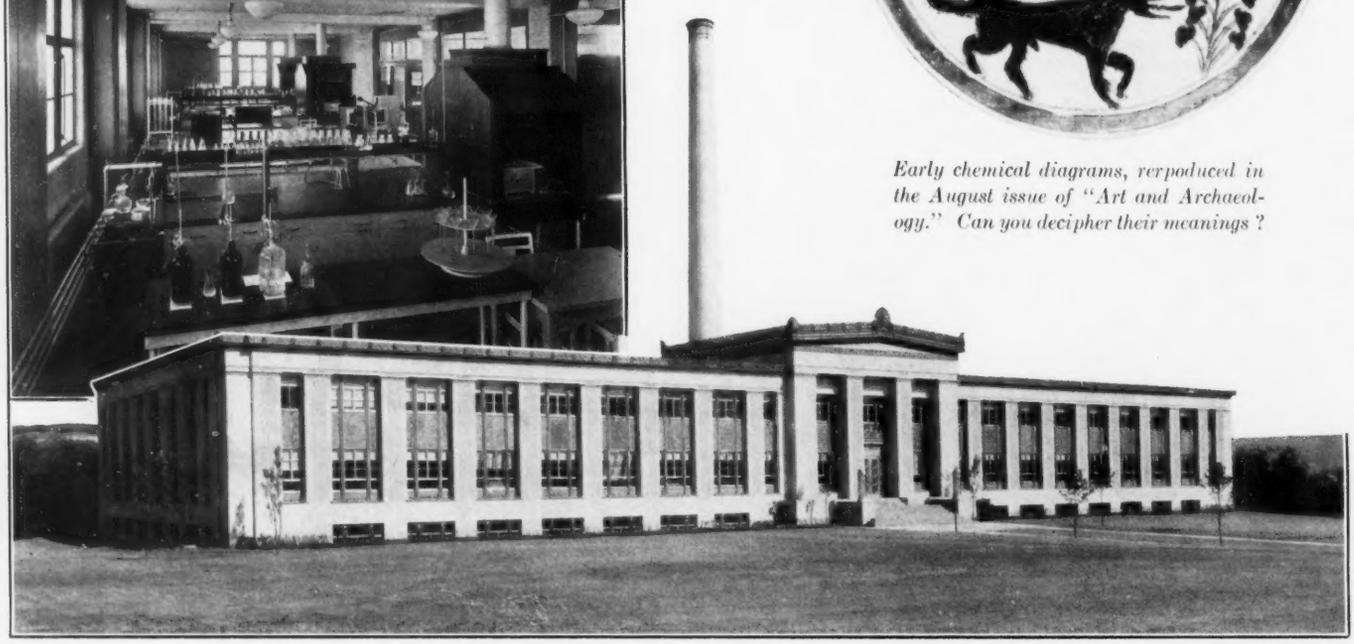
(Right)
Dr. Herbert Levinstein, the retiring president of the Society of Chemical Industry, London, as depicted in "The Industrial Chemist."



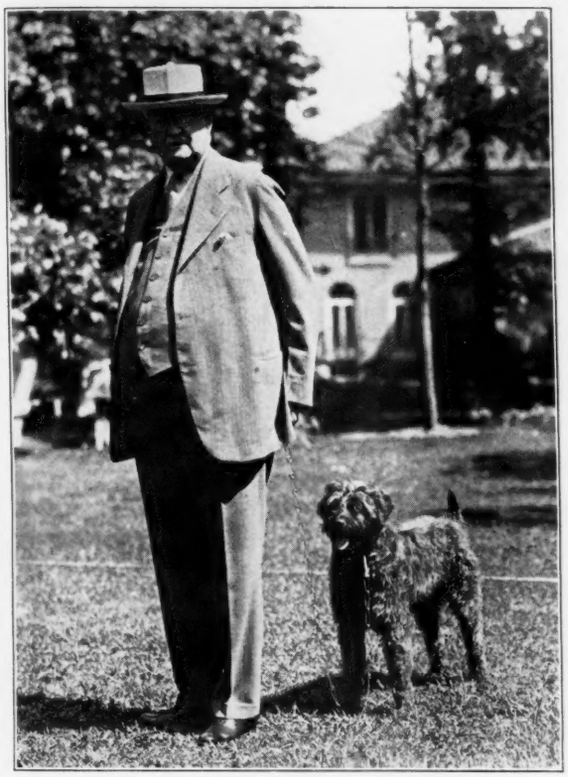
Views in the new research laboratories of the Aluminum Company of America at New Kensington, Pa., and the building itself

Early chemical diagrams, rerpoduced in the August issue of "Art and Archaeology." Can you decipher their meanings?





NEWS REEL
of Chemical Activities



(Above) Accompanied by the new Monsanto mascot, a Kerry Blue terrier, John F. Queeny returns to the "home town", St. Louis, after an extended sojourn abroad

(Below) Annual dinner of the Congress of the Society of Chemical Industry at Birmingham, England, July, 1930. Standing, left to right, are the Lord Mayor, M. L. Lancaster, Dr. Levinstein, The Lady Mayoress, Lord Melchett

Bakelite's new offices at 247 Park Avenue, New York City. The scheme of treatment is distinctly modernistic with bakelite "laminated" extensively featured throughout

Allegheny Metal or "Chrome steel" arrives at the lunch counter after its conquest of the new Ford Model A

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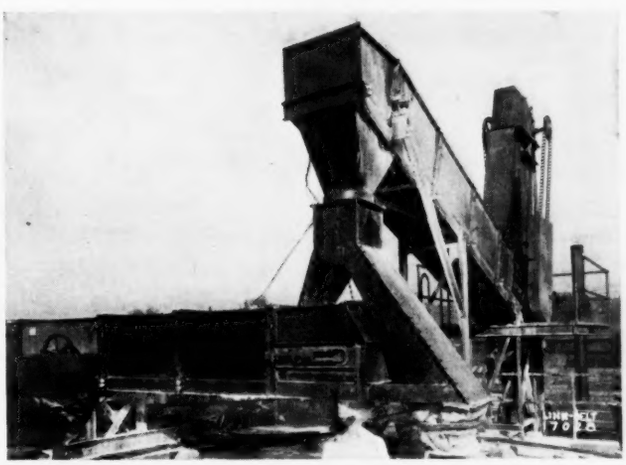
Longer Life for Conveyers

By Frederick Wehle
Engineer Link-Belt Company

"WHAT must I do to make my conveyers last longer?" This question is continually being asked by those in chemical plants who are directly responsible for the proper maintenance of conveying systems and by those who are called upon to authorize expenditures for the purchase and upkeep of systems.



Transferring sand to storage bins in a large glass plant

Few industries have exhibited a more progressive tendency than the chemical, in supplanting expensive labor-handling of bulk commodities with conveying systems. Therefore proper maintenance is a subject of major importance to most plant managers and executives.

The capital invested in conveying systems is often quite large and was incurred with sole purpose of bringing about substantial economies in production costs. Unless, however, a regular supervision is exercised over the equipment and some competent judgment is employed in selection, the savings which might reasonably be expected to materialize are lost through inattention and carelessness.

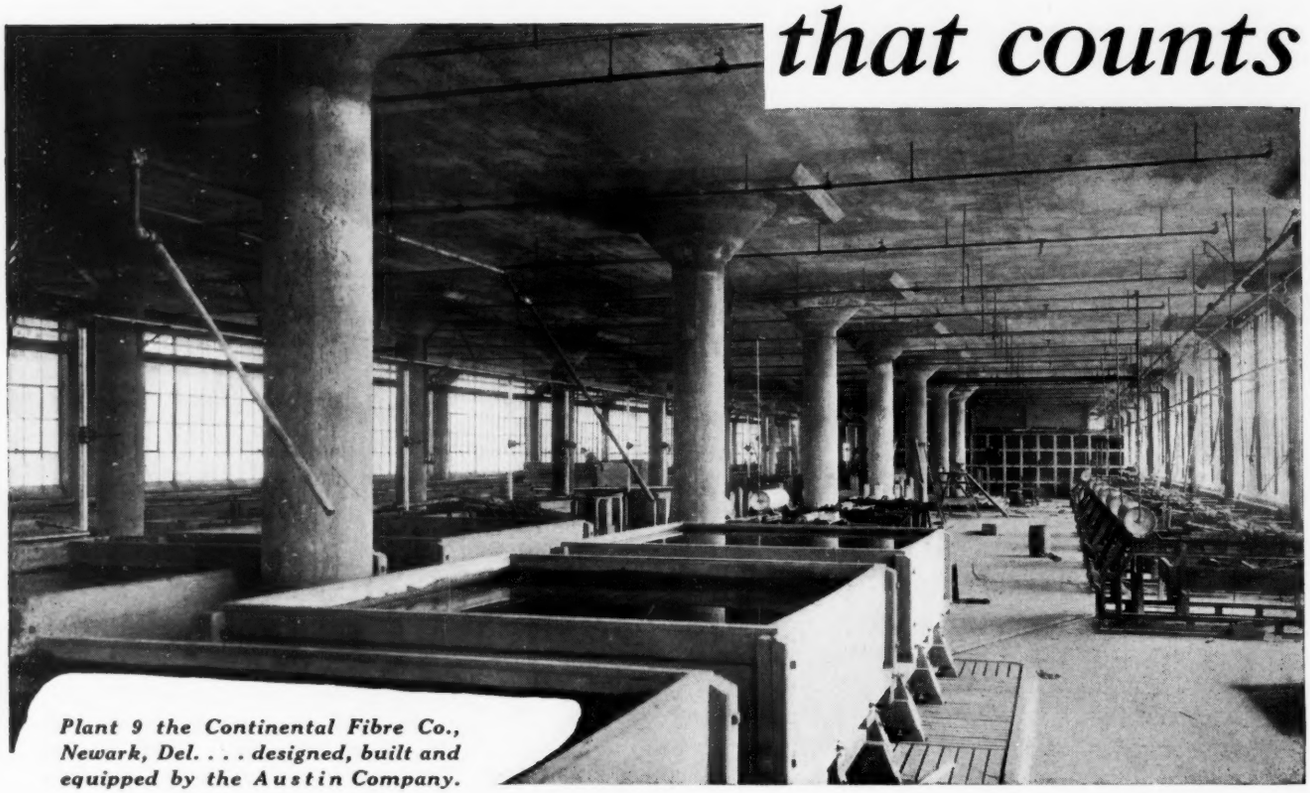
"Understanding" Machinery

In general the man who has sympathy for machinery has the best luck with it although luck is perhaps not the proper word to employ. To revert to a rather homely analogy, but a true one nevertheless, a man brought up with horses knows a horse's limitations and feels a close kinship to every horse. He does not attempt to force the horse to pull a two or three-horse load, or to pull against dry hubs or dragging breaks and he does not underfeed him or neglect his health. If maintenance men could be made to fully appreciate that conveying systems have an expected span of life just as the horse has and that this span can be lengthened with care and shortened with abuse then more satisfactory results would be inevitable.

Good Conveying Practice

Good conveying practice can be divided into two divisions. Proper thought in the original design of the equipment and careful attention to proper maintenance practice after it has been installed. Some abuse of conveyers is due to buying them too light through underestimating the daily tonnage or neglecting to consider the question of irregularity in feeding. One hundred and fifty tons per day fails to state the case when a conveyer is to receive thirty tons per hour for five hours, or where it has a ton of material dropped on it whole at ten or twelve-minute intervals. It is possible to choke to a standstill a fifty ton per hour coal crusher by feeding it "carefully" from a one-yard grab-bucket. Low upkeep starts with a real study of capacity requirements present and future before the conveyer is bought.

It's the **FIRST STEP** *that counts*



Plant 9 the Continental Fibre Co., Newark, Del. . . . designed, built and equipped by the Austin Company.

In good design lies the basis of profitable plant operation. No matter how economically a new plant can be constructed, or old plants can be modernized, unless production costs are reduced the investment is a poor one indeed and a source of constant waste.

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If you are considering a new plant, branch plant or an extension of present facilities it will pay you to get in touch with Austin. Phone or wire the nearest Austin office, or use the handy memo below.

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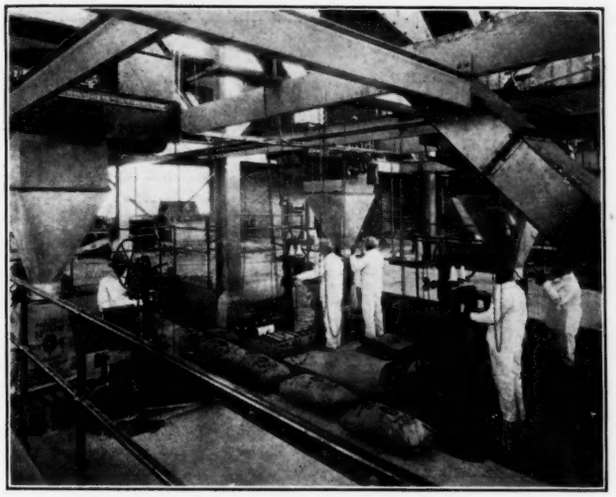
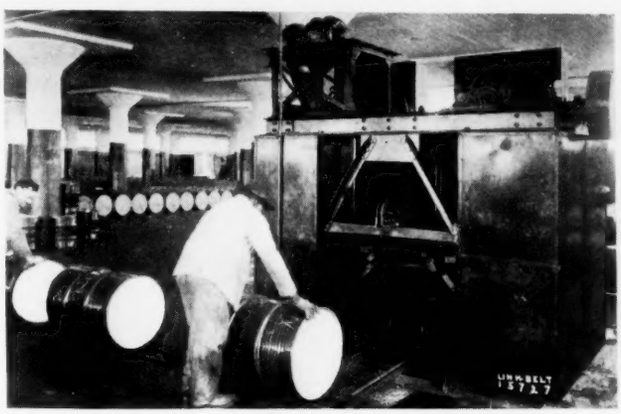


Well designed conveying equipment is revolutionizing handling practices in fertilizer plants

Everybody knows that hot, gritty, gummy, wet, or corrosive materials are hard on conveyers, but for practically every material that industry has dared the manufacturers of the conveyers to tackle a right kind of conveyer has gradually evolved. Compared with handling-costs per ton of some materials on conveyers of early design, the unit costs with modern equipment is only a fraction. Elevators and conveyers for foundry sand, glass, sand, asphalt, chemicals, sugar, salt, fruit, coal, hot cement clinker, coke, ashes, many ores and heavy dredged or crushed products, etc. must be built with a full knowledge of the requirements. Before you pull a pair of shoes out of the closet you know whether you are going to climb mountains or play tennis or walk a tight rope. Before prices are obtained on a conveyer be certain you have made yourself very clear about the stuff to be conveyed. Suitability is a big step toward durability.



Manual labor is reduced to a minimum with modern conveying systems

Need of Good Design

To make conveyers last longer and cost less over a period of years, it is necessary to have definitely in mind that these are the qualities that are to be purchased. There are many grades of clothes, shoes, wallpaper and trucks. Conveyers correspond to trucks, in that fashion plays no part in their price. Greater durability, greater reliability, and less upkeep expense are the valuable things you pay for when you buy the more expensive materials-handling outfit.

Seemingly expensive engineering usually means work by better engineers, and a good general design based on a real study of requirements. This is important because there is often a question at first as to whether, for a specific installation, a continuous bucket elevator is better than a skip hoist, or whether the horizontal movement should be by drag or by apron, by belt, or by a screw conveyer. Or, whether vertical and horizontal may be combined by one of several methods. Wise selection at this point makes a great difference.

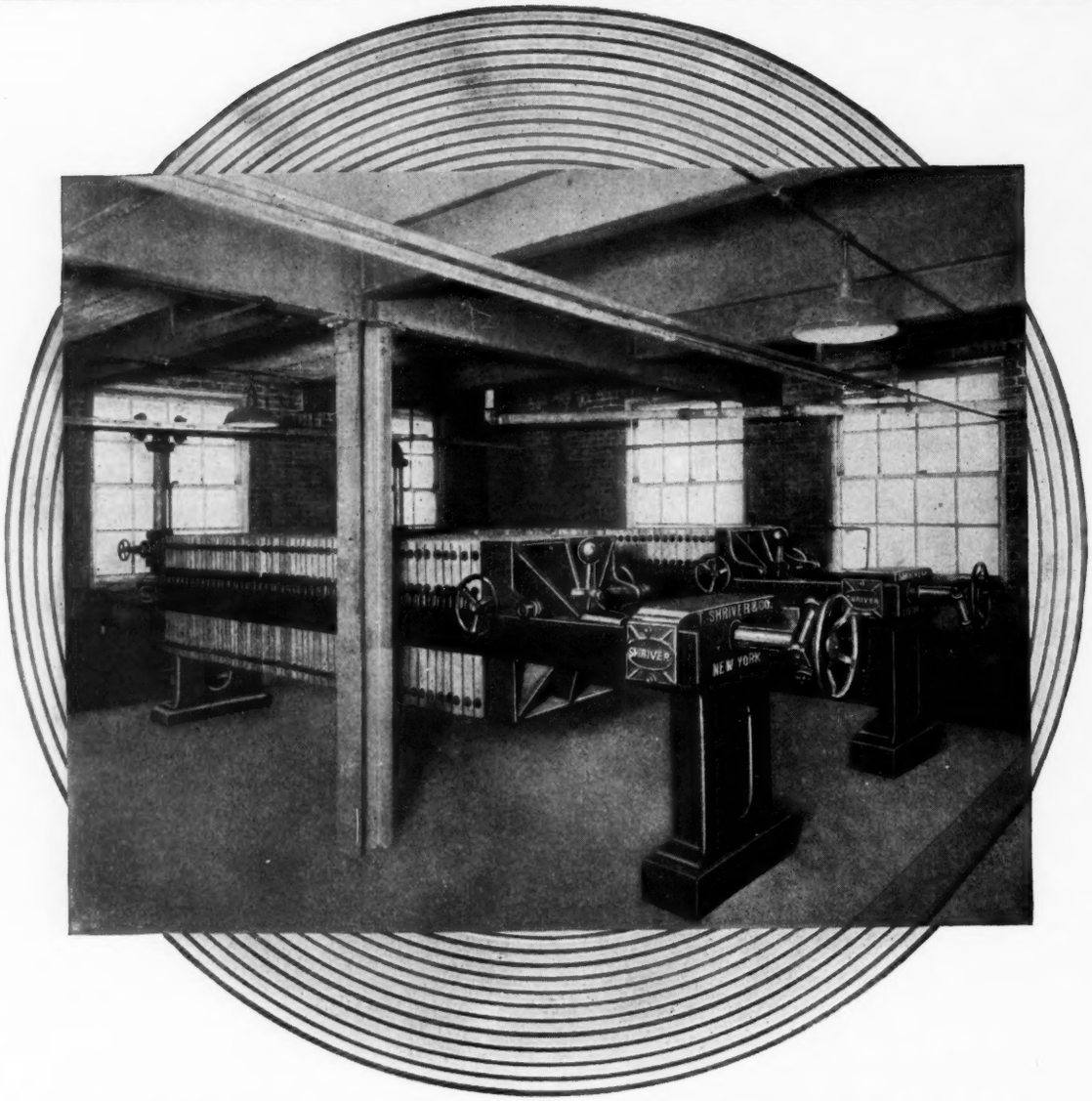
Safety and Accessibility

Good engineering of the general layout will go farther. It insures rigid and dependable supports to carry the machinery so it will stay in line, so it will be safe and accessible for painting, and for cleaning and oiling, all of which means less ultimate cost and longer life. It means chutes that will not clog, clearances that are safe, and paths of travel that are economical.

Good engineering extends to every detail of a conveying system, and is the least expensive thing to buy. It includes selection of the right design, and the right size and the right material for every shaft, every bearing, every chain, every gear, and all idlers, sprockets, pulleys and other parts. All for safety, dependability, long life and lowest power consumption. The best engineering means the most service for the least money.

Leading engineers and conveyer builders manufacture and can furnish several grades of almost any article in their catalogs. If you want your outfit unusually durable, and want it to require the minimum of attention, let your engineer know your aims. He will realize that he is dealing with a man who appreciates quality. You will be offered a grade of machinery which you might never have known existed. Do not give your conveyer man the impres-

Conveyers are an important factor in reducing costs in this soda-ash plant



SHRIVER FILTER PRESSES

Shriver Filter Presses are available in every practical size and type to meet the needs of those requiring the utmost in filter press operation at the lowest possible cost.

Our engineering staff is always at the service of those interested in filtration.

Your inquiries are solicited.

T. SHRIVER & COMPANY

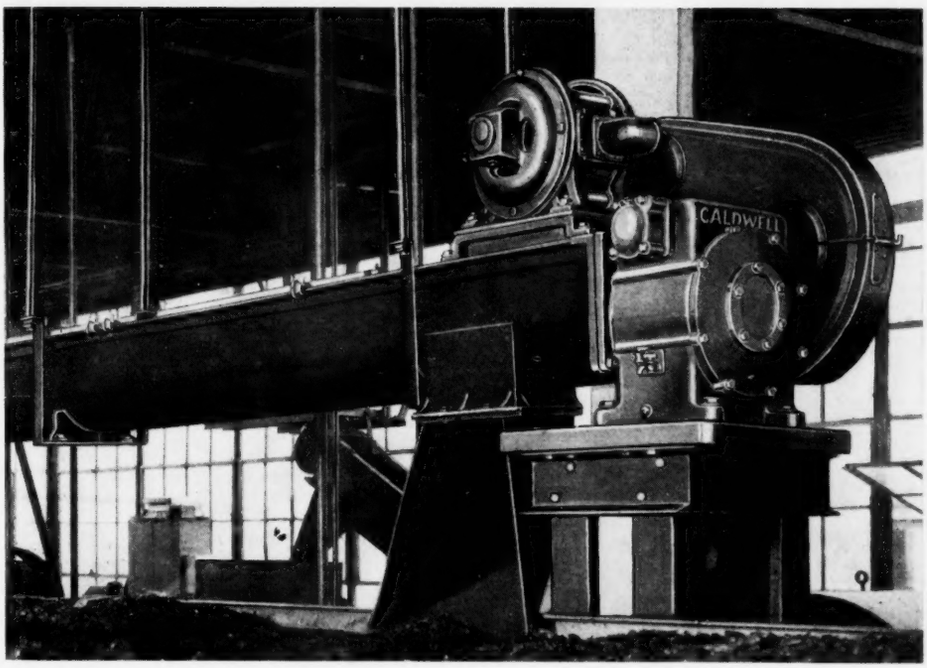
ESTABLISHED 1860
856 HAMILTON STREET
HARRISON - N. J.

A FILTER PRESS FOR EVERY PURPOSE

SHRIVER

T. SHRIVER & CO. FILTER PRESSES HARRISON, N.J.

FILTER PRESSES FILTER CLOTH DIAPHRAGM PUMPS



A large installation moving shredded rubber in a factory in Akron, O.

These improvements and many more were the result of a demand by discriminating buyers. If you want the results that they demand, you will just have to be a discriminating buyer yourself.

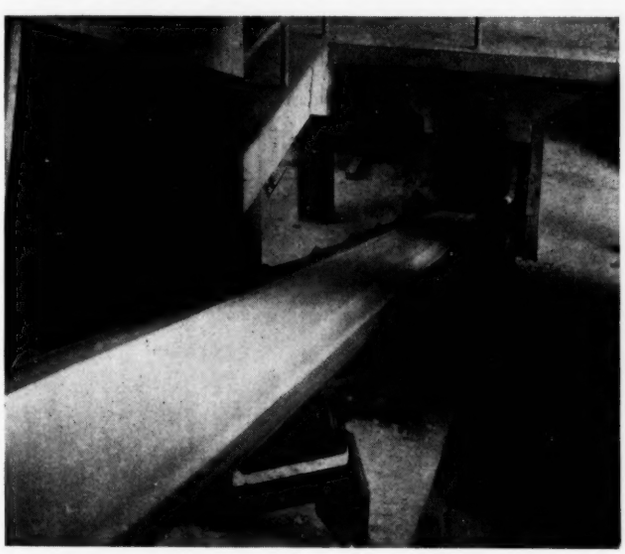
For duplicate conveyers used in identical service, the difference in life will naturally depend on the care in maintenance. This is an important thing to watch, because the maintenance some plants consider strict would be sniffed at by foremen in other plants.

Making conveyers last longer is largely up to the man responsible for their selection. Perhaps the day will come when the buyer will explain his needs and then ask "Who can give me the best quality work for the $4,800.00 I have in my budget for this conveyer, and how much better could you build it for $6,000.00?" To my mind that would be the way to get comparable proposals, and so start some real competition in the direction of quality and durability.

sion that you are going to buy the cheapest thing the conscience of his concern will let him submit in a competition for low first cost.

Better Chains Using Less Power

To-day there are roller-bearing belt conveyer idlers requiring less than half the power of old kinds, lasting much longer, and needing to be lubricated twice a year as compared to 365 times. There are sets of cut tooth alloy-steel gears operating silently in oil in compact heavy dustproof housings, with dustproof roller bearings for the shafts. There are chains of heat-treated alloy steel with case-hardened pins and bushings that could not have been furnished at any price a few years ago, but which are turned out in quantity lots to-day, and carried in stock by the foremost chain manufacturers.



Bulk commodities such as salt are specially adaptable to handling equipment

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Natural abrasives sold by producers in United States in 1929, as reported by United States Bureau of Mines, was as follows:—

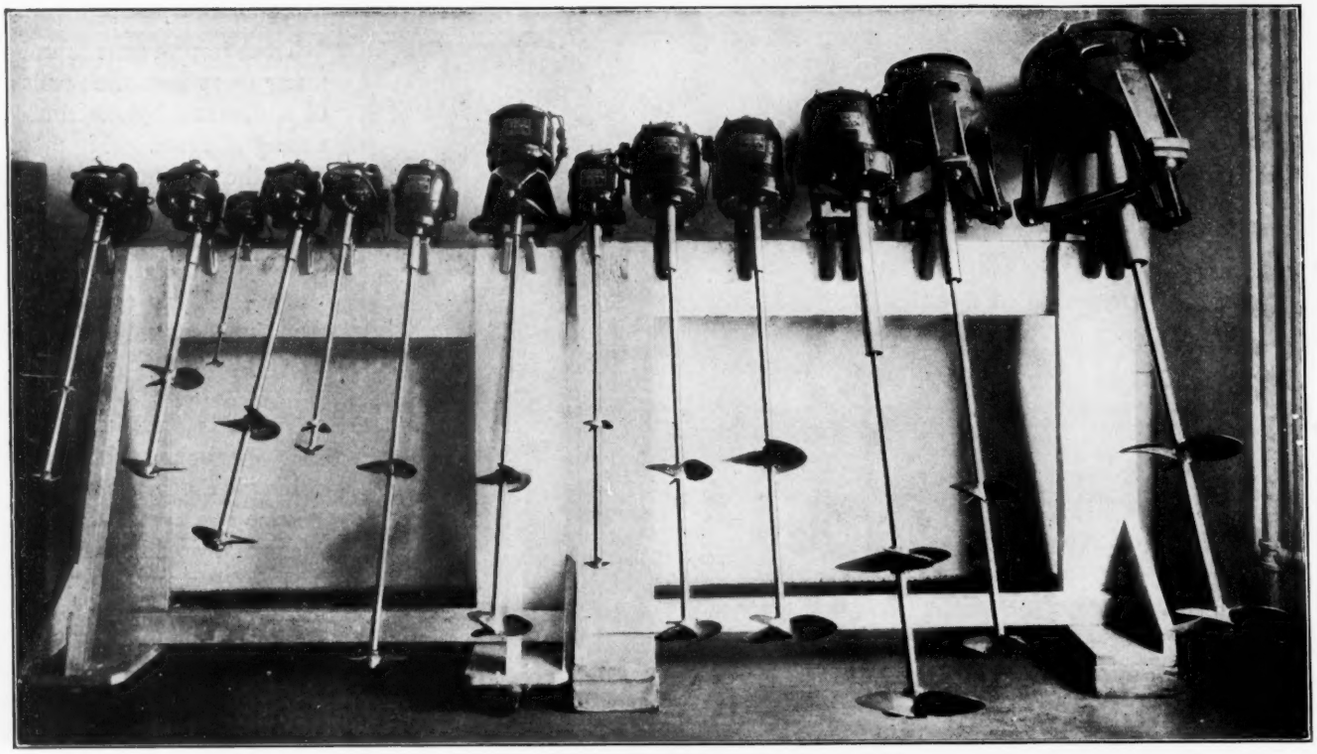
	Tons	*Value*
Emery	924	$10,722
Garnet	5,961	435,420
Grinding pebbles and tube mill lining	4,630	66,178
Grindstones	21,071	617,618
Millstones, chasers and dragstones	.....	31,407
Oilstones, whetstones, hones, scythestones, and rubbing stones	838	212,017
Pulpstones	6,665	623,928
Pumice	60,873	318,579
Tripoli	38,011	545,658

Artificial abrasives manufactured and sold during 1929 totaled 126,712 tons, valued at $10,821,696, divided as follows: Carbides, 30,309 tons, $3,060,401; aluminum oxides, 72,614 tons, $6,471,373; metallic abrasives, 23,789 tons, $1,289,922.

Sodium sulfate (salt cake) imports increase from 6,000 tons in 1926 to 91,000 tons in 1929, although country contains large natural deposits not worked because of prohibitive transportation costs. Direct synthetic process of producing hydrochloric acid has also cut down by-product production of salt cake and niter cake.

French coaltar production increases in 1929 to 241,000 metric tons at gas plants and 320,000 metric tons at coke ovens, total being an increase of 45,000 metric tons over 1928 production.

Soviet builds first aluminum plant, 6,000 tons yearly capacity, at Swanka, near Leningrad, to begin operation in fall of 1931.



A FEW OF THE MANY MODELS OF «*Hy-Speed*» PORTABLE ELECTRIC LIQUID MIXERS READY TO SERVE YOU

•ALSOP ENGINEERING CO•

Manufacturers of "*Hy-Speed*" Portable Electric Liquid Mixers, Mixing Tanks, Filters, Pumps, and "*ALSOP*" Glass-Lined Mixing and Storage Tanks.

39 West 60th Street, New York City

Fifty Years of Service in the Chemical Industry

JELLIFF WIRE CLOTH

Because we have kept abreast of changing conditions in the chemical industry over a fifty-year period, JELLIFF has been successful in solving the many new and difficult screening and filtration problems brought about by new developments.

JELLIFF WIRE CLOTH is fabricated in any weave, mesh, width, or length, and in any of the following metals:

MONEL METAL	Aluminum	Everdur
Nickel	Iron	Bronze
Nickel Chromium	Gal. Steel	Phosphor Bronze
Steel	Brass	Stainless Steel
Copper	Ambrac	

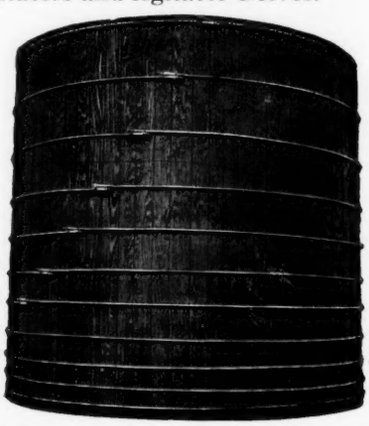
The experience of JELLIFF is at your service to help solve your wire cloth problems.

The C. O. JELLIFF MFG. CORP.
SOUTHPORT, CONN.

In New York, Boston, Newark and Philadelphia: The Whitehead Metal Products Co.
In Chicago, Detroit and Dayton: The Central Steel & Wire Co.
In northern New York State: Charles H. Meyn of Syracuse

...Over 75 Years BUILDING TANKS

for Chemicals, Acids, Dyeing, Pickling, Water Supply and Sprinkler Systems, etc.
Also Agitators and Agitator Drives.



Built of Cypress, Cedar, Fir, Yellow Pine, Redwood or Oak. Lined or unlined.

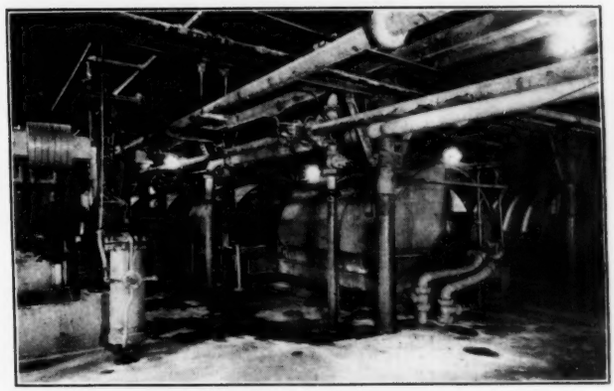
Catalogue and prices upon request.

ATLANTIC TANK CORPORATION
237 Tonnele Ave., North Bergen, N. J.
Established 1853

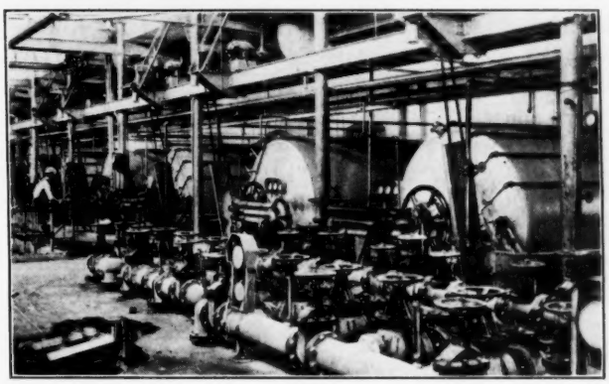
Modern Filters

Increased capacity and greater speed have brought new economies in many of the chemical processes.

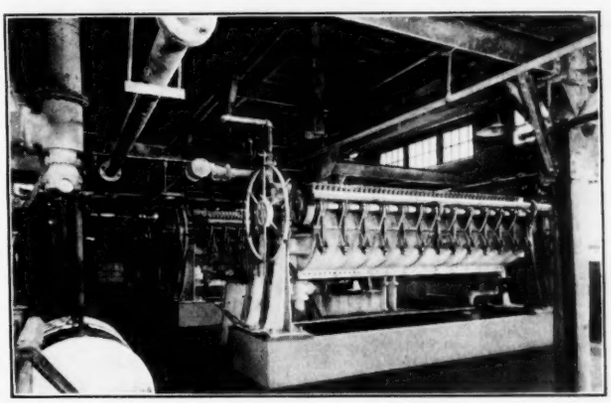
By D. F. Irvin



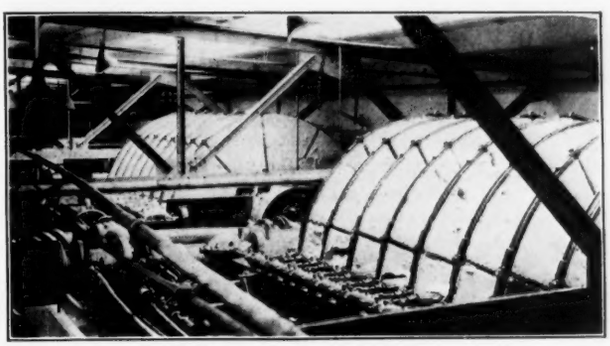
Filtering and washing calcium saccharate from beet sugar by continuous filter



Filtering and washing corn starch by continuous disc-type filter



Pressure filters handling glucose after its conversion from starch



Continuous disc-type filter adapted to recovery and thickening of paper pulp

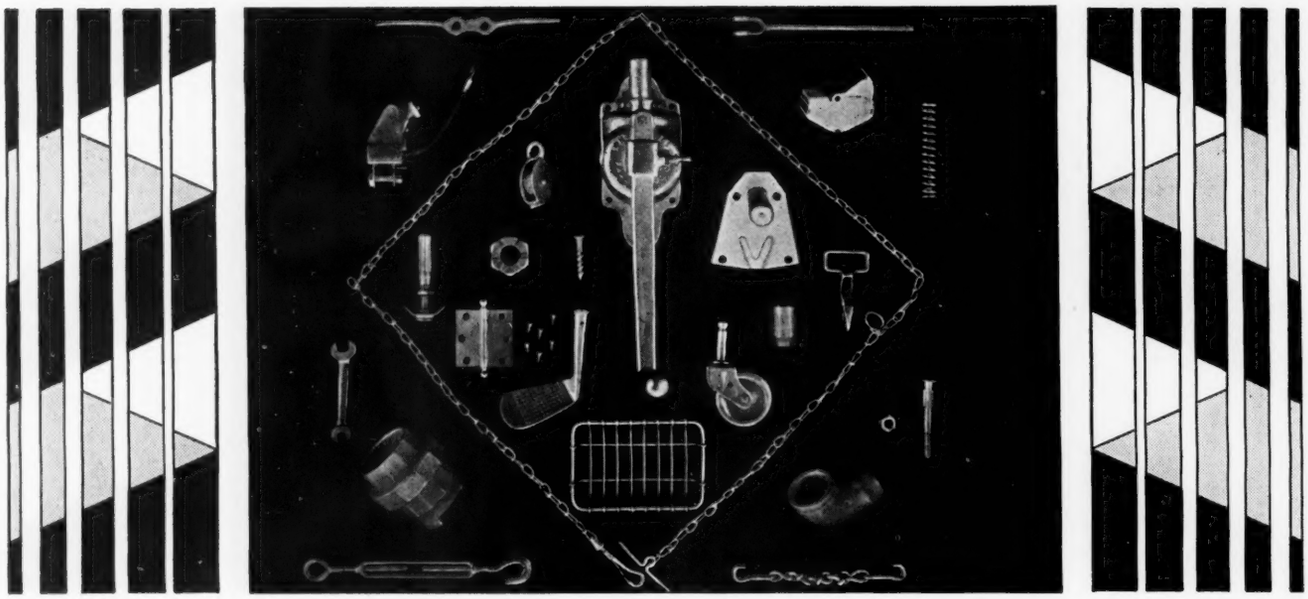
WITHIN the short space of the past twenty years or less, the entire field of chemical conversion processes has experienced a silent and profitable change, due to mechanical improvements adapted to their work.

Among these new methods none has been more important in realigning the economic prospects of a process than has modern filtration.

It may be said this embraces more industries than the layman or even the chemist realizes. The very basis of our industrial life, commercial credit founded on the gold standard, has been hugely increased through the greater production of gold, which in turn depends almost entirely upon the cyanide treatment of gold and silver ores. This production for the past twenty years has relied upon fine grinding of ores and the subsequent recovery of their precious metal solution content by a process dependent upon filtration.

The continuous rotary drum filter is known and used for this purpose today in every important gold field of the world; in fact large new installations of this type are being erected this summer in Canada, Australia and South Africa.

There are other uses of filters where the chemist and the metallurgist share responsibility, that is in the processing of base metals and recovery as refined metal or as chemical by-products. In electrolytic zinc plants, the separation of zinc sulfate solutions, as well as lesser amounts of cadmium sulfide, etc., are essential elements in the success of a method which has practically displaced the former retort method of zinc production and is growing steadily in world importance.



Their Enhanced
ATTRACTIVENESS *and* DURABILITY
Help Sell Your Product—

CADALYTE
A Process and Product for Cadmium Plating

The CADALYTE process is an exclusive Grasselli method of electro-depositing pure metallic Cadmium on iron and steel products to protect them against rust and give them an attractive finish.

CADALYTE, the product, is a dry mixture of all the chemicals required for the plating solution. It requires only the addition of water. Grasselli Cadmium Anodes assures an electro-deposit which is 100% pure Cadmium metal.

WHEREVER metal parts must be economically protected against rust, Cadmium plating has filled a need.

In developing the CADALYTE process and product for Cadmium plating, Grasselli has played an important part in metal protection.

The CADALYTE process, employing the Grasselli electrolyte called CADALYTE, imparts an attractive appearance to iron and steel products and at the same time affords the maximum degree of rust-proofing with the minimum of metal.

The great advantage of the CADALYTE process is that plating costs are lower by this process than by any other.

Write for the CADALYTE booklet. Or phone the nearest Grasselli branch for a technical expert in metal protection to consult with and advise you on metal plating costs and processes.

GRASSELLI CHROMIC ACID
Over 99% Pure

For Chromium Plating, the high quality of Grasselli Chromic Acid is always uniform. This electrolyte produces a bright, shining surface, which will not tarnish.

It is an accepted fact that the purer and harder a metal, the less easily it is corroded or scratched. With Grasselli Chromic Acid and Grasselli Chemicals, the purest possible metal is deposited.

THE GRASSELLI CHEMICAL COMPANY

INCORPORATED — *CLEVELAND, OHIO*

New York Office and Export Office: 347 Madison Avenue

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SAN FRANCISCO — 576 Mission Street LOS ANGELES — 363 New High Street

Represented in Canada by CANADIAN INDUSTRIES Ltd., Heavy Chemicals Div., Montreal and Toronto.

GRASSELLI GRADE
A Standard Held High for 91 Years

In electrolytic copper refining, specially designed filters of continuous drum type are used to separate acid electrolyte from residual anode mud containing the precious metal content of the unrefined copper.

There are many sub-products in metal refining operation which are recovered in various forms, such as chemical compounds, either solid or dissolved, among which are various sulfates, carbonates and oxides of lead, zinc, tin, copper, etc., and without the modern filter such recoveries would be imperfect, expensive and difficult to obtain.

Entering the field of industrial chemical engineering where conversion process work rules, the continuous filter has earned its place; in the separation of caustic soda from salt in electrolytic chlorine plants, in the separation of calcium sulfate from phosphoric acid, and in the separation of caustic soda solutions from lime mud (calcium carbonate), there are three of the important uses of the continuous vacuum filter which have given operating economies and increased recoveries.

New Filtering Practices

In the above cases, as in most others, the aim is usually a joint wish for clarity of filtrate, dryness of discharged solids in cake and perfection of wash where the filtrate is a solution and not plain water. One step in electrolytic chlorine production involves the concentration of caustic soda liquor by multiple effect of evaporation with salting out effect giving increased densities of caustic liquor with accompanying bulk. Formerly, this separation and washing took place in "salt-boxes" attached to the outlet of the evaporator bodies; the method had limited capacity, required regular attention, and was not easy to inspect, while washing of salt was unsatisfactory. The same objections were encountered when using centrifuges for this work.

Nowadays the accepted practice uses the continuous vacuum filter, which steadily delivers concentrated NaOH solution with minimum dilution, which is due to the washing of the cake of salt crystals on the filter by sprays, and regulation of the thickness of cake at will of filter operator.

Phosphoric acid manufacture, based on conversion of apatite (Ca_3PO_4) by sulfuric acid to $CaSO_4$ and phosphoric acid, is rapidly growing in importance; at first the separation of gypsum from the acid was only practical by successive decantations and dilutions which threw an unwanted burden on the evaporators in raising the grade of dilute acid thus produced.

The operations of a western copper company about ten years ago first used a continuous rotary vacuum filter in this work; thereby assuring a final gypsum residue washed and dried more fully than decantation residues and with less dilution of solutions. This work was effected on partially concentrated phosphoric acid solution using a filter of combined wood and lead construction.

Today, a filter by the same manufacturer is in successful use separating full strength phosphoric acid from gypsum, but built in all cast lead instead of wood and bronze. The use of this machine permits a one-story building to be used and the discarding of a large number of tanks for successive dilution and decantation, as well as simplifying the work of its operators for concentrating dilute acid solutions.

Special Types

The story of lime mud removal in caustic plants is a similar one, wherein multiple decantation and dilute NaOH solution recovery was the former practice. Nowadays, two continuous rotary filters take the full strength product from the causticizers and by double filtration deliver a clear, strong caustic solution and a cake of calcium carbonate with 0.01% Na_2O per ton dry weight for reburning.

In crystal filtration, once the undisputed field of centrifuges, remarkable performances by special types of continuous, top feed, vacuum filters are being recorded. Since this work is often kept on a confidential basis, data may not be enclosed, but at least this much may be said.

Sodium nitrate, di-ammonium phosphate magnesium sulfate, sodium chloride, and other similar crystals are being successfully separated from their liquors, washed and dried at tonnage rates and moisture contents hitherto thought unattainable.

A combination of filtering, washing and drying, preparatory to packaging the crystal product, all on the same machine, seems incredible, but this step has now been attained. The procedure may be expected to become standard in certain lines of chemical production.

Filters in Modern Life

The widening field of use won by modern vacuum filters in chemical industries has been gained by modifying essential details, such as the degree of vacuum used, the kind of filter medium, the volume of air drawn through the filter, and the temperature of both the pulp in the filter and air, as well as the more obvious changes in mechanical construction.

Improved practice with pressure filters finds them adopted as the standard for handling the various products of the petroleum refinery, the quick opening, enclosed shell type of pressure leaf filters being used for the production of lubricating oils, gasoline, and intermediate materials in steadily increasing numbers.

Clever adaptation of a special filter medium and often a filter-aid makes success possible for this work, and at times a heat-insulating cover on the shell of the filter with provision for extra high pressures have been the indispensables for success.

Seldom does the driver of a modern automobile realize that a filter is steadily at work while his engine revolves, taking the lubricating oil and passing it through a small pressure filter; in this way prolonging the engine's useful life by removal of grit and carbon.

Smell Appeal Is New Art In Modern Merchandising
(By Associated Press.)
HAMILTON, N. Y., July 10.—Early
arrival of a new era of sweet smells
was forecast today by Dr. Ronald
A. Laird, head of the department of
SELL BY SMELL
SMELL APPEAL FROM NOW ON TO HAVE PLACE
Disagreeable Odors in Industries Are Put to Work

Perhaps you read one of these articles

How about its smell?

This question is becoming of greater importance in the minds of the buyers. Textiles, artificial leather, and rubber coated products must now be divorced from their objectionable odors to comply with the demand for pleasantly smelling merchandise.

Are you looking ahead and solving your odor problems now? Perhaps we can help you too.

Largest manufacturers of aromatic products in America

Givaudan-Delawanna, Inc.

80 FIFTH AVENUE NEW YORK, N. Y.

Our food industries lean heavily upon automatic filters for economy in starch and sugar manufacture and in no industry has the technique of filtration been farther advanced.

Increased recovery of sucrose and greater purity gained by high efficiency washing of filter cake are the basis for their choice: cane and mud filtering and washing and the improved technique given to Steffens' process (molasses treatment in beet sugar works) have provided huge sums to the sugar producers which formerly were lost in process before continuous filters could be used.

Although not within the scope of this summary, which refers chiefly to the work of the chemical industries, it is of passing interest to note that there are two major fields of automatic filtration attended with the greatest success in the various materials produced in the course of paper manufacture, and in the dewatering of cement slurry before passing to the cement kiln for burning.

The purpose in the latter instance is to remove excess water from the slurry before burning and thus provide a reduction in the quantity of coal or other fuel used to burn the cement and incidentally thus increase the capacity of the kiln itself in terms of cement production.

Filters in Paper Industry

In the case of the paper industry, the products are so numerous and so varied that it will suffice to state the purpose of filtering in such case as, first, a desire to prevent loss of fine fibre escaping in waste water from the paper mill, to wash the fibre thoroughly from dissolved chemicals used in its preparation, and to remove excess water from the pulp in course of process. Incidentally, there are many lime-mud filter installations in paper mills, both in connection with kraft paper manufacture and also on a plain lime mud basis.

As may be imagined, these varied duties have produced a wide range of mechanical designs in the filter which is in itself an assurance that filtration problems yet to be solved will be met as successfully as those for whose solutions the present varied designs of filters were provided.

Freeport Texas Co. increases board of directors from 10 to 15 by appointing William L. Moody, 3rd, president, Moody-Seagraves Co., and director, American Utilities & General Corp., United Gas Co., and American National Insurance Co.; P. G. Maercky, vice-president, Freeport Texas Co., vice-president and general manager, Freeport Sulphur Co., and director, Houston Lighting & Power Co.; Herbert B. Flowers, president, New Orleans Public Service, Inc.; Lindley C. Morton, former president, Phoenix Portland Cement Co., and director, Manufacturers Trust Co., New York and American Traders National Bank of Birmingham, Ala.; and E. N. Chilson, vice-president, J. G. White Engineering Corp.

I. G. Farbenindustrie A. G., obtains patent for process for preparation of colored nitrocellulose lacquers. Fibrous nitrocellulose is intimately ground with insoluble coloring matter in presence of water. Resulting mass is treated with highly volatile solvent, dispersing color in colloidal form through solution.

Alcohol Advisory Committee

Alcohol advisory committee of 15 members, appointed by Dr. James M. Doran to co-operate with Bureau of Industrial Alcohol in working out industrial and scientific problems arising under permissive sections of national prohibition act, is composed of:

Dr. William C. Woodward, Chicago, director, Bureau of Legal Medicine and Legislation, American Medical Association; Harrison E. Howe, Washington, editor, Journal of Industrial and Engineering Chemistry, American Chemical Society; S. Chatfield, New York City, president, National Oil, Paint and Varnish Association; S. C. Henry, Chicago, secretary, National Association of Retail Druggists; C. Mahlon Kline, Philadelphia, president, Smith, Kline and French; Everett B. Hurlburt, South Glastonbury, Conn., chief chemist, J. B. Williams Company; A. Homer Smith, Philadelphia, president, Sharpe and Dohme Company; Frank M. Noonan, Boston, Noonan and Sons; R. R. Brown, New York City, president, U. S. Industrial Alcohol Company; Fred S. Rogers, Middletown, N. Y., McMonigle and Rogers; Charles L. Reese, Wilmington, E. I. du Pont de Nemours Company; Martin H. Ittner, New York City, Colgate-Palmolive-Peet Company, chairman of Industrial Committee of American Chemical Society; Willoughby M. McCormick, Baltimore, president, McCormick and Company; Frank A. Blair, New York City, Household Remedies Company; Donald D. Conn, San Francisco, managing director, California Vineyardists Association.

Chile Nitrate Producers Association representatives and Banco Exterior, Spain, sign agreement to govern supply and prices of nitrate. Spain imports annually 140,000 tons of nitrate which has been conservatively valued at 55,000,000 pesetas. Initial price of nitrate at the Spanish port must be accepted by Government; all shipments are to be consigned to Banco Exterior, which is to charge small commission. There is also a plan for Banco Exterior and Chile Nitrate Producers Association to form Spanish company to handle distribution and regulate Spanish market for nitrate.

Asbestos shipments from Canadian mines during June show considerable decline, compared with year ago. June, 1930, output amounted to 12,551 tons, compared with 18,216 tons last year, a drop of over 30%. Shipments of crude No. 1 for first six months of this year amounted to 410 tons, compared with 471 last year; shipments of crude No. 2 came to 681 tons, against 1,149 tons; fiber 34,417 tons, against 47,099 and "shorts in bags" amounted to 34,489 tons, against 39,574 for the first half of 1929. Present year's shipments are also considerably below those of two years ago.

Suida process for manufacture of acetic acid from hardwood timber, avoiding expensive manufacture of acetate of lime as intermediary chemical, is brought to United States by W. H. Matthews, president, Forest Products Chemical Co., Memphis, and Newberry Lumber & Chemical Co., Newberry, Mich., and head of newly incorporated Crossett Chemical Co., now constructing large plant at Crossett, Ark., for manufacture of acetic acid and other chemicals from hardwoods.

Canadian Industries (Ltd.) has under construction at Copper Cliff, Ontario, a $1,500,000 sulphuric acid and niter cake plant, Capacity of the acid plant will be approximately 150 tons per day, while the output of niter cake will depend on the amount required to supply the International Nickel Co. of Canada (Ltd.). The old Mond Nickel Co. acid plant of 70 tons per day capacity at Coniston, Ontario, is still in operation.

Two new fumigants—ethylene dichloride and ethylene oxide—non-poisonous to human beings and adapted to wide range of modern needs, are developed by Carbide & Carbon Chemical Corp. Compounds, which are colorless and almost odorless, are suited to fumigating homes, storerooms, granaries and materials attacked by insects.

Bichromate of Soda
(Crystals)

Bichromate of Soda
(Granular)

Bichromate of Potash
(Crystals)

Bichromate of Potash
(Granular)

Bichromate of Potash
(Precipitated)

Sulphate of Soda

Customers make our shot

Some folks shoot off cannon, so to speak, to attract attention to their wares. But the bullet has a hollow sound that dwindles away in the inevitable silence that follows the first big noise.

Fortunately we do not need to use such tactics—our customers make our shot. They forge the balls of confidence which we pass on to you. That is why we say that, chemically and physically, there are none better than Natural bichromates and chrome products.

Natural Products Refining Company
904 Garfield Ave. Jersey City, N. J.

Natural
BICHROMATES • CHROME PRODUCTS

BICHROMATES

Chemical Facts and Figures

Chemical Export Changes

Although total chemical exports for the first half of 1930 declined 12 per cent in comparison with those of the first half of 1929, there were many bright spots in the trade and in many instances exports were greater, as in the case of benzol, coal-tar medicinals, household insecticides, many chemical specialties, methanol, formaldehyde, calcium chloride, borax, soda ash, caustic soda, gases and several other industrial chemicals, bone black and lamp black, red lead and litharge, roofing paints, lacquers, kalsomine and paste paints, and others, according to A. H. Swift, Chemical Division, U. S. Dept. of Commerce.

United States, Germany and France, account for 56 per cent of all fertilizer used by the world at present, according to survey prepared by National Fertilizer Association. Germany leads all countries with a consumption of 1,834,000 net tons; the United States is second with 1,488,000 tons, and France third with 953,000 tons. In addition to leading in total consumption, Germany also leads in consumption of nitrogen and potash. United States leads in consumption of phosphoric acid and stands second in the use of nitrogen and potash. France ranks second in consumption of phosphoric acid and third in utilization of potash, while Japan ranks third in consumption of nitrogen.

Science determines whether synthetic methanol, used as antifreeze, is dangerous to public, according to *Industrial and Engineering Chemistry*, journal of American Chemical Society. Carbide & Chemicals Corp., Commercial Solvents Corporation, and du Pont Ammonia Co. are financing an investigation under supervision of Dr. R. R. Sayers of U. S. Public Health Service. Tests are being carried out by Dr. W. P. Yant of the Bureau of Mines.

Methanol has not been marketed at a price which made it really competitive as an antifreeze. Now it may enter market.

American Chemical Society membership increases from 3,079 to 18,000 and budget from $15,000 to $557,000 in last twenty-five years. Society ranks as largest professional organization of its kind in the world, according to report by president, Prof. William McPherson, Ohio State University. Balance sheet shows surplus of $301,106.84, but more funds are needed for publishing all important new results of chemical research, pure or applied, says report.

New upward revision on rates of naval stores from points in South Atlantic and Gulf Coast States to points in trunk line and New England territories are denied by I. C. C. on ground that new rates are not justified.

U. S. Civil Service Commission announces open competitive examinations for senior chemist, chemist and associate chemist, applications to be filed not later than Oct. 1.

Sulfur is found in Humble oil field by Universal Oil Co. at depth of 1,300 feet. Freeport Sulfur Co. acquires substantial interest in acreage covering sulfur prospect.

Sulfate pulp over-production in Sweden, Norway and Finland has caused closing of many mills. Most mills are prepared for poor business through 1931.

Muscle Shoals project disposition is urged on President Hoover for regular December session of Congress by Representative Taylor, Tennessee.

New Research Laboratory

Coal research laboratory at Carnegie Institute of Technology is made possible by gifts totalling $425,000 from the Buhl Foundation of Pittsburgh, United States Steel Corp., General Electric Co., Koppers Co., N. Y. Edison Co., Standard Oil Co. of N. J., and Westinghouse Electric and Manufacturing Co.

Commercial Solvents Corp. chemists perfect process using rye in place of corn in production of solvents and other products made by company. The new process has been placed in successful operation at company's plants at Peoria and Terre Haute. Commercial Solvents Corp. normally consumes approximately 8,000,000 bushels of corn annually as raw material for its solvents and other products. Approximately 3 per cent more rye than corn is required in process just perfected.

U. S. helium plant, near Amarillo, Texas, produces 9,801,060 cubic feet helium in first fiscal year of operation ending June 30, 1930. Cost of production has steadily decreased, June, 1930, costs being $9.35 or $6.23 net cost per 1,000 cubic feet of helium produced.

New synthetic sweetening agent, 700 times as sweet as cane sugar, called syn isomer of 5-benzyl-2 furfuraldoxim, is prepared by Gilmann and Dickey, Iowa State College, from maize residues.

Japanese creosote oil exports to the United States declined to 634,709 gallons, compared with 1,452,912 gallons in 1928. The invoice price also dropped from 17c to 13c per gallon.

German exports of dyes declined to 21,028 metric tons, valued at 94,912,000 mars first half of 1930 from the 25,221 tons worth 111,305,000 marks sold during same period of 1929.

Italian rayon production increases 10 per cent during first five months of 1930, compared with same period a year ago. Exports declined about four per cent.

Coming Events

American Society of Mechanical Engineers, Poinsett Hotel, Greenville, S. C., October 22nd.

American Chemical Society, 80th meeting, Hotel Gibson, Cincinnati, O., September 9th to 12th.

Association for the Advancement of Science, Cleveland, O., Dec. 29th.

American Society for Steel Treating, Chicago, Sept. 22 to 27th.

National Paint & Varnish Association and American Paint & Varnish Manufacturers' Association. Royal York Hotel, Toronto, week of October 13th.

National Association of Retail Druggists, Atlantic City, N. J., Sept. 15th.

National Metal Congress and Exhibition, Hotel Stevens, Chicago, September 22 to 26th.

National Safety Council, Pittsburgh, Pa., September 29th—October 3rd., William Penn Hotel.

National Wholesale Druggists Association, Edgewater Beach Hotel, Chicago, October 12-16th.

Salesman's Association Golf Tournament, Briarcliff Lodge, Briarcliff, Manor, September 16th.

T-S-P

Users of Tri-Sodium Phosphate desiring a free-flowing, readily soluble product find Aero Brand meets their requirements.

Aero Brand Tri-Sodium Phosphate is manufactured with extra care. It is carefully cured and screened, and well packed to preserve its perfect mechanical condition.

Aero Brand T-S-P is shipped in non-sifting, paper lined packages and in drums, kegs, barrels and bags up to 325 pounds. Write for quotations.

Industrial Chemicals Division

American Cyanamid Company

535 Fifth Avenue New York

News of the Companies

Colgate-Palmolive-Peet Co. is ordered to pay approximately $350,000 in income taxes to Wisconsin Tax Commission, which according to decision cover taxes from 1924 to 1930, which were charged to have been avoided by reporting incomes based on arbitrary or fictitious arrangements between affiliated companies, Palmolive Co. of Wisconsin, Palmolive Co. of Delaware, Western Operating Co. of Delaware and Buckingham Agency of Illinois. Company officials state that case will be appealed.

Richards & Co., chemical manufacturers, Stamford, Conn. plant explosion costs lives of three employees and serious injury to fourth in fire caused by explosion believed to have been caused by ignition of alcohol fumes in dehydrating department by static electricity.

Industrial Sugar Products Corp. is organized under Delaware to produce laminated glass and resinous materials from sugar products, by new method which provides cheap raw materials and low cost manufacture in general plastic field and provides sugar industry with new outlet for its products.

American Telephone and Telegraph Company makes general reduction of $6 on all telephone calls between North and South America. Cost of a conversation between New York and Buenos Aires is now $30 for first three minutes and $10 for each additional minute, instead of former rates of $36 and $12.

Harshaw Chemical Co. moves into new Philadelphia office and warehouse building, which greatly increases warehouse capacity and provides for new laboratory. Various manufacturing operations are also carried on at Philadelphia plant.

John H. Heald Co., tanning extracts, Lynchburg, Va., agrees to install apparatus to reclaim greater portion of sulfate waste discharging from its plant into James River, and menacing Richmond's water supply.

Hercules Powder Naval Stores Dept. curtails entire production of rosin and turpentine about ten per cent, to avoid production in excess of sales. Time is cut to three weeks in month, without reduction in number employed.

International Printing Ink Corp. abandons plans for consolidation with Newport Chemical Co., which, however, will be continued as a wholly-owned subsidiary of Newport Co.

Seed Oil Products, Ltd., leases Penman mill, Thorold, Ont., to begin production of soybean oil products. Herbert Grisdale will be superintendent.

Mansfeld Copper Mines, Germany, reopen for work, after having been closed since June 1, with wage cut of 9½ per cent.

Weidmann Silk Dyeing Co., Paterson, N. J., chemicals explosion injures Dr. Max Amman, chemist, and another employee.

John H. Barker, representing La Bour Self-Priming Centrifugal Pumps, moves to Tribune Bldg., New York.

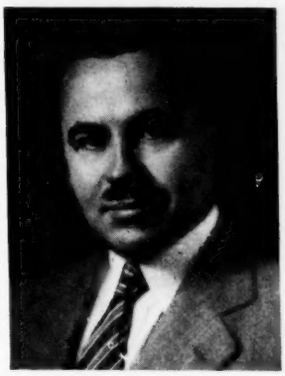
American-British Chemical Supplies, Inc., moves to 180 Madison ave., New York. Telephones unchanged.

Roessler & Hasslacher issues new booklet on arctic, refrigerant, available on request.

Dow Chemical Co. issues booklet on glue preservation with orthophenylphenate.

R. & H. Executive Appointments

Dr. Edward A. Rykenboer is elected member, board of directors Roessler & Hasslacher, a subsidiary of du pont Co., replacing George F. Hasslacher, resigned, director and assistant secretary. Dr. Rykenboer is 41, a graduate of the University of Rochester, 1912, and University of Michigan (Ph. D.) where he taught after his graduation. In 1917 he joined Roessler & Hasslacher at Niagara Falls as research chemist, becoming later superintendent of production and general superintendent of Niagara Falls plants of company.



J. Carlisle Swaim

J. Carlisle Swaim, elected assistant secretary of the company, holds the degrees of A. B. (1911) and M. A. (1913) from Vanderbilt University and an LL. B. (1915) from Columbia Law School. After serving in the World War, he joined the law firm of Merrill, Rogers, Gifford and Woody, where he remained until he became associated with Roessler & Hasslacher in 1928. He is 41 years old.

R. & H. recent appointments include: E. B. Bloom, instructor of chemistry at Lehigh University; A. G. Cole, since 1928 teaching fellow at State College of Washington; R. W. Currie, Wm. F. Geigle, H. S. Greene, O. B. Hodges, R. E. Hulse, J. H. Payne, T. E. Thompson, and H. E. Wagoner.

Glyco Products Co. introduces galagum, neutral, tasteless and odorless white powder of vegetable origin, which can be used as colloidal stabilizer, emulsifier and suspension agent. It is used for giving body to water paints, sizes, glues, and similar products, and for making aqueous suspensions of graphite, abrasives, pigments, dyes and the like.

Heyden Chemical Co., represented at New York by subsidiary of same name, applies funds recently received from American Alien Property Custodian to depreciation. Sales turnover of company, despite difficulties encountered during year, has been maintained, according to report. Progress made by American Heyden Chemical Co., Inc. during the period was satisfactory.

Harry Warner, agronomist and editor, National Fertilizer Association, resigns to accept similar position with Barrett Co., New York. He has been with the association since 1925, and was previously with the Extension Service, Iowa State College, Ames.

Hydroproof Chemical Corp., manufacturer waterproofing compounds, becomes allied with Republic Varnish Co., Newark, consolidating their offices at Republic company's headquarters, 201 Thomas st., Newark.

General Chemical Co. opens office at 110 Fifth avenue S. E., Minneapolis, with H. D. McGovern as salesmanager for northwest in charge.

Dr. Francis L. Simons, formerly director of research, Rogers Fibre Co., Kennebunk, Maine, joins staff of Skinner & Sherman, Inc.

B. T. Babbitt, Inc., Albany, buys lye preparing plant of J. B. Ford Co., Wyandotte, Mich. for over $1,000,000.

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Organic Chemicals

E. I. DU PONT DE NEMOURS & CO., INC., Intermediates Section, Wilmington, Delaware

Personal and Personnel

Charles L. Patterson, retired vice-president, E. I. du Pont de Nemours & Co., dies August 18, aged 74. After graduation from high school, he became salesman for Repauno Chemical Co., and was in charge of Southern office when company was merged with du Pont, when he was appointed director of explosives sales. In 1907 he became a vice-president of company and member of board of directors. He retired several years ago. He was president, Wilmington Associated Charities.

John M. Wing, retired president of Wing & Evans, Inc., dealers in chemicals, dies August 2, aged 70. Mr. Wing retired from active business in Wing & Evans a few years ago, but retained several of his directorships, among them those in the Solvay Process Co., and Semet-Solvay By-Products Coke Corp. of Chicago.

Solomon L. Sulzberger, president, Enterprise Paint Manufacturing Co., which he founded in 1893, dies on board the *Aquitania* July 23. He had been president, Paint Manufacturers' Association of United States and Paint, Oil & Varnish Club, Chicago. He was seventy-three years old.

Sir William Alexander, K. B. E., M. P. chairman, Chas. Tennant & Co. Ltd., Glasgow, Scotland, and director, Celanese Corp. of America, plans to make annual visit here first week of October. His headquarters will be with American-British Supplies, Inc., of which he is president.

Dr. H. Schmitz, president I. G., becomes chairman of board, Internationale Gesellschaft der Stickstoffindustrie A. G. of Basel (International Nitrate Co.,) with capital of 6,000,000 Swiss fransc.

Dr. C. E. Norton, formerly with Skinner, Sherman & Esselen, Inc., is now with the Charles A. Krause Milling Co., Milwaukee, in charge of development work in new uses for their products.

Christopher G. Memminger, president, Coronet Phosphate Co., dies August 13. He assisted in organization of company in 1908 and became president on the death of A. A. Cowlis.

George M. Fox, treasurer, Boston Consolidated Gas Co., dies at sixty-four, July 16. He had been identified with street railway before joining the gas company.

Dr. Spencer W. Prentiss resigns from research department, Skinner, Sherman & Esselen, Inc., to be with Gustavus Esselen, 73 Newbury st., Boston.

Bernard W. Lehner discontinues representing National Oil & Supply Co. to become member of Wollen Chemical & Supply Co., Paterson, N. J.

Theodore L. Faller, formerly secretary of Geo. F. Taylor & Co., Inc., is elected president, succeeding Geo. F. Taylor who died June 21.

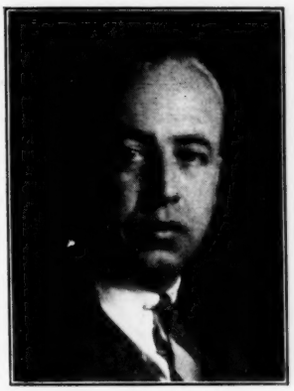
W. L. Taylor, formerly with William O. Goodrich Co., division of Archer-Daniels-Midland Co., is transferred to Chicago.

Cecil E. Miller joins operating staff of Foster D. Snell, consulting chemist, working in Rochester for the present.

L. W. Rowell, manager fertilizer department, Swift & Co., Chicago, is elected vice-president of the company.

Henry P. Fletcher, Pennsylvania, is appointed chairman, Tariff Commission by President Hoover.

Industrial Rayon Changes



Arthur A. Murphy

Arthur A. Murphy, sales manager of Industrial Rayon Corp. for past four years, is elected vice-president in charge of sales, and Hayden B. Kline, formerly technical director in charge of plant operations, was elected vice-president in charge of plant operations. He is a graduate of the Massachusetts Institute of Technology and joined the company five years ago as member of the research department.

George M. Norman, technical director, Hercules Powder Co., and A. B. Nixon, general manager, Cellulose Products Department, sail for Europe, the former to attend the International Cellulose Conference at Liege, Belgium, the latter to survey the market for American collodion cotton in Germany and other countries.

James F. Burt, manager, chemical export department, W. R. Grace & Co., New York, resigns to accept position with New England concern.

Edward Mallinckrodt, Jr., vice-president Mallinckrodt Chemical Works, St. Louis, gives $250,000 to Washington University for radiology building duplicating gift of his father for same purpose.

T. F. Dunn, Jr., Wishnick-Tumpeer, Inc., makes extended business trip to England and the continent, visiting agents, customers and sources of materials.

Falkingham Joins Murray Oil

J. A. Falkingham

J. A. Falkingham resigns as manager, New York office Ellis Jackson & Co., to become associated with Murray Oil Products Co., Inc., in charge of chemical department at Margaret and Pearce sts., Philadelphia. Murray Oil are also selling agents for the Michigan Alkali Co. in that territory.

Alfred W. Jenkins, of Parsons & Petit, leaves on S. S. *Saturnia* August 15 for indefinite stay abroad.

Gregory Mangin, son of J. J. Mangin, president, United Color & Pigment Co., Newark, N. J., wins with Berkeley Bell, of United States Davis Cup squad, in men's doubles final of Southampton tournament. At the Westchester finals he met defeat at the hands of Clifford Sutter, though playing great tennis.

Norman P. Rood, vice-president and director, Hercules Powder Co., returns from extended business trip abroad. P. B. Stull, general manager, Virginia Cellulose Dept., Hercules, also returns from Europe. P. W. Meyeringh, manager, N. V. Hercules Powder Co., Rotterdam, Holland, visits home office at Wilmington.

Now in 100 lb. Multi-Wall Paper Bags Light 58% Soda Ash

Another forward step in a program of constant improvement---Wyandotte Soda Ash now comes in multi-wall paper bags. Multiple wrappings end the old dust nuisance. No Soda Ash sifts out---it can't.

The new 100 lb. size handles easier, quicker. You save time, labor. Guaranteed dust-proof, leak-proof, break-proof, moisture-proof.

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General Sales Department

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New Plant Construction

Crossett Chemical Co., Crossett, Ark., recently formed, plans new plant for manufacture of acetic acid and other chemicals derived from distillation of hardwoods. W. H. Matthews, president, Forest Products Chemical Co., Memphis, Tenn., is president of new company.

The Philadelphia Quartz Co. which is constructing addition to subsidiary plant at Berkeley, Cal., is Philadelphia Quartz of California not company of same name of Philadelphia, as was mentioned in August issue of CHEMICAL MARKETS.

Prestcoke Corp. begins commercial manufacture of its product, "prestcoke", a synthesized anthracite reduced from mid-continent bituminous coal, retailing for about $3 ton less than mined anthracite.

Burton Explosives, Inc., New Castle, Pa., builds large plant on site of former Burton Powder Works, of which J. S. Burton, head of Burton Explosives, was former head.

Freeport Texas Co. acquires lease on 2,000 acres on Stratton Ridge Salt dome, Brazoria County, Texas, third in a series of explorations now going on.

Trubek Laboratories, Inc., Carlstadt, N. J., chemicals and chemical by-products, plans new plant laboratory unit at East Rutherford, N. J., to cost about $40,000.

Dry Ice Corp. arranges for construction of new plant for production of carbon dioxide refrigerant at Continental Oil Co. properties near Walden, Colo.

Vanadium Corp. of America erects new plant to mine nelsonite in its Amherst and Nelson County, Virginia, properties to cost in excess of $2,000,000.

Sulphio Co., Martins Ferry, Ohio, manufacturer of copperas, plans rebuilding part of plant recently destroyed by fire, at less of about $70,000.

Commercial Solvents Corp. new acetic acid plant, Peoria, Ill., nears completion and will be put in operation first quarter of 1931.

Goodyear Tire & Rubber Co. completes three new units for its chemical division at Akron, Ohio, at cost of about $50,000.

Standard Oil of Indiana is reported building new refinery at Casper, Wyoming, to use hydrogenation process in cracking oils.

Smith-Douglas Fertilizer Co., Norfolk, Va., erects third fertilizer plant, at South Kinston, N. C., to cost about $60,000.

Spiritine Chemical Co., Wilmington, N. C., completes two plants for creosoting timbers and building materials.

Walker Fertilizer Co., Winterhaven Fla., builds new plant with capacity of 100 tons per day.

Canadian Gypsum Co., Ltd., builds gypsum products plant at Hillsborough, N. B.

Selden Co. removes its sales division offices to 535 Fifth ave., New York.

American Mineral Products Co. of Trenton, N. J., completes installation of machinery in new buildings near Cold River station, two miles from Bellows Falls, Vt., and commences shipping products. The buildings have been under construction several months and about $125,000 has been expended by the company, including machinery and fixtures. The concern will employ from 60 to 100 men when in full operation. The products are feldspar and mica.

Pacific Coast Borax Co. transfers all machinery from Eastern plant, Bayonne, N. J., to Wilmington, on Los Angeles, Cal., harbor, where it will concentrate all refining activities. Proximity to Death Valley mines and superior efficiency of Wilmington plants are responsible for change.

American Railway Association's mechanical division general committee abrogates provision pertaining to change of handbrake power on existing tankcars and allows cars to come under same ruling as other freight cars.

Carbon Products, Ltd., erects $250,000 factory in Los Angeles, Calif., for production of carbon black and other materials. Plant will have a capacity of 30,000 pounds of carbon, carbon black and lampblack daily.

American Potash & Chemical Corp. plans expansion and improvement program at Trona, California, including additions in mining and refining plants, to cost more than $4,000,000.

Charles L. Read & Co., New York, announces addition of a naval stores division. Harry W. Siebert, formerly with John A. Casey & Co., will be in charge.

Superior Earth Co. plans to construct fuller's earth plant—16 cars weekly capacity—at Emathla, Fla., to replace present plant at cost of about $80,000.

U. S. Industrial Chemical Co., Baltimore, Md., plans early rebuilding of portion of plant recently destroyed by fire, at cost of about $200,000.

Upjohn Co., Kalamazoo, Mich., plans erection of new factory branch, storage and distributing plant at Memphis, Tenn., to cost about $40,000.

Howard University, Washington, D. C., plans new four-story chemistry building to cost about $230,000, including equipment.

Bailey Meter Co., Cleveland, O., announces new ratio control meter for mixing gases or liquids in any desired proportion.

General Printing Ink Corp. purchases 4½ acres of land adjacent to Geo. H. Morrill Co., Chicago, one of its divisions.

Edgar H. Wells & Co., Inc. move to 602 Madison ave., New York, telephone Wickersham 9356.

Davison Gulfport Fertilizer Co., Gulfport, Miss., contracts for addition to plant.

S. D. Shore Fertilizer Co., Plant City, builds fertilizer mixing plant at Wauchula, Fla.

American Metals Co. closes its office at Joplin, Mo.

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NATIONAL ANILINE & CHEMICAL COMPANY, Inc.

40 RECTOR STREET NEW YORK, N. Y.

Manufacturers of a complete line of organic chemicals for the dyestuffs, lacquer, paint, rubber and general chemical trade.

New Incorporations

Anderson Thomas Co., Newark, N. J., chemists—Harold A. Miller, 2,500 shs com.
Sterling Drug Co., Dover, Del., chemical, pharmaceutical products—First Mutual Corp. Co., Inc., $100,000.
Chex-It Laboratories, New York, chemicals—J. H. Ide, 100 shs com.
Jay-Bar, New York, chemists—L. M. Wieder, $20,000.
Carlin Chemical Corp., Buffalo, N. Y., drugs—Klein & James, $5,000 pfd.; 200 shs com.
H. H. H. Mfg. Co., Dunkirk, N. Y., chemicals—Nugent & Hiffernan, $10,000.
I-O-Dine Laboratories, Inc., Philadelphia, non-toxic vegetized iodine—Corp. Guarantee and Trust Co., 20,000 shs com.
Westchester Powder Corp., White Plains, chemicals—D. H. Moses, $20,000.
Hudson Laboratories, Inc., New York, drugs, chemicals—Prentice Hall, Inc., 10,000 shs com.
Petersen & Frese, Valley Stream, N. Y., chemicals—W. M. Blake, Jr., 100 shs com.
Canadian Bronze Powder Works, Ltd., Montreal,—5,000 no-par shs.
Master Builders Co., Ltd., Toronto, paints and chemicals—$50,000.
Sheffields Bronze Powder Co., Ltd., Toronto, chemicals—40,000 no-par shs.

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4791

HOOKER CHEMICALS

The Financial Markets

Newport Co. Reports Lower Net Profits for First Half

Earns $1.26 on 507,920 Shares Outstanding Against $2.10 for the Same Period a Year Ago. Second Quarter is Also Considerably Below Corresponding Quarter in 1929.

The Newport Co. and subsidiaries report for six months ended June 30, 1930, net profit of $690,836 after depreciation, federal taxes, etc., equivalent after dividend requirements on $3 Class A convertible stock outstanding at end of period, to $1.26 a share on 507,920 no-par shares of common stock. This compares with $731,617, or $2.10 a share on 255,337 common shares in first half of 1929.

Net profit for quarter ended June 30 amounted to $264,819, after above charges, equal to 47 cents a share on 507,920 common shares, comparing with $426,017, or 82 cents a share on 485,705 shares in preceding quarter and $375,687, or $1.09 a share on 255,337 shares in June quarter of previous year.

Consolidated income account for six months ended June 30, 1930, compares as follows:

	1930	*1929*
Net sales	$5,063,101	$5,217,428
Costs and expenses	3,988,499	4,183,163
Operating profit	$1,074,602	$1,034,265
Other income	11,417	64,436
Total income	$1,086,019	$1,098,701
Depreciation	306,541	266,084
Federal taxes	88,642	101,000
Net profit	$690,836	$731,617

Consolidated balance sheet of Newport Co. and subsidiaries as of June 30, 1930, compares as follows:

Assets	*1930*	*1929*
*Land, bldgs, mach, etc	$7,584,702	$7,346,397
Cash	631,071	452,409
Secured demand loans	.....	100,000
Accounts receivable	963,695	1,032,288
Inventories	4,617,498	3,800,785
Formulae and processes	372,432	459,009
Investments	608,800	193,983
Deferred charges	256,615	208,132
Total	$15,034,813	$13,593,003
Liabilities		
Capital stock	†$5,748,520	$8,682,090
Accounts payable	562,383	704,765
Federal taxes	211,396	215,869
Accrued Class A divs	.....	32,500
Purch money oblig	435,000	322,500
Reserves for conting	620,568	620,568
Miscel reserves	112,981	292,228
Surplus	7,343,965	2,722,483
Total	$15,034,813	$13,593,003

*After depreciation. †Represented by 33,466 shares par $50, of convertible Class A stock and 507,920 no-par shares of common stock.

An analysis by the Wall St. Journal of over a thousand corporations reporting in July for the first six months period of 1930 shows the following results:

Increased earnings	167
Decreased earnings	401
Initial dividend	12
Dividends unchanged	770
Dividends increased	5
Dividends decreased	24
Dividends omitted	26

Union Carbide & Carbon Corp. declares regular quarterly dividend of 65 cents, payable October 1 to stock of record September 4.

United Carbon Report Unfavorable

United Carbon Co. reports for six months ended June 30, 1930, net profit of $468,229 after depreciation, depletion, contingent reserves and federal taxes, equivalent, under the participating provisions of the shares to $3.92 a share on 19,694 shares (par $100) of participating preferred stock and 98 cents a share on 397,885 no-par shares of common stock. This compares with $838,791 or $7.42 a share on 53,631 preferred shares and $1.85 a share on 237,661 common shares in first half of 1929.

	1930	*1929*	*1928*
Operating profit	$1,186,639	$1,648,971	$1,110,385
Other income	171,206	166,888	.....
Total income	$1,357,845	$1,815,859	$1,110,385
Depreciation and depletion	764,616	768,530	624,941
Interest and discount	.....	46,038	58,858
Contingent reserve	70,000	42,500	30,000
Federal tax reserve	55,000	120,000	46,000
Net profit	$468,229	$838,791	$350,586
Preferred dividends	70,988	187,708	.....
Common dividends	397,885	.....	.....
Deficit	$644	*$651,083	.....

*Surplus.

New Jersey Zinc Earns $1.57 a Share

New Jersey Zinc Co. reports for quarter ended June 30, 1930, net profit of $1,417,288 after depreciation, depletion, taxes, contingencies, etc., equivalent to 72 cents a share (par $25) on 1,963,264 shares of stock. This compares with $1,671,867, or 85 cents a share, in preceding quarter and $2,447,806, or $1.25 a share, in second quarter of previous year.

Net profit for six months ended June 30, 1930, amounted to $3,089,155 after above charges, equal to $1.57 a share, against $4,474,741, or $2.28 a share in first half of 1929.

Income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*	*1927*
*Net profit	$1,417,288	$2,447,806	$1,812,431	$1,975,514
Dividends	981,632	981,632	981,632	981,632
Surplus	$435,656	$1,466,174	$830,799	$993,882

Six months ended June 30:

	1930	*1929*	*1928*	*1927*
*Net profit	$3,089,155	$4,474,741	$3,461,459	$3,744,994
Dividends	2,944,896	3,926,528	2,944,896	2,944,896
Surplus	$144,259	$548,213	$516,563	$800,098

*Includes dividends received from subsidiaries and after taxes, depreciation, depletion, etc.

Financial Highs and Lows

New Highs

Am Agr Chem pfd
American Smelt pfd
Colgate-Palm, pfd
Col Fuel & Iron pfd
Corn Products pfd
Diamond Match
Eastman Kodak pfd
Gen Motors 5%
Gold Dust pfd
Grand Union pfd
Sun Oil pfd

New Lows

Amalgamated Lea pfd
Am La France
American Metals
Amer Smelt 6% pfd
Amer Sol & Chem pfd
Celanese Am Corp.
Celotex Corp.
Corn Products
Davison Chem
Devoe & Ray pfd
Inter Nickel
Inter Print Ink
Libby Owens Ford Glass
National Lead
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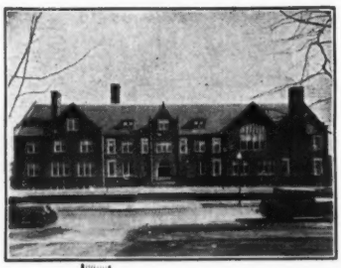
Procter & Gamble pfd
United Dyewood pfd
U. S. Industrial Alcohol
U. S. Rubber



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Stearate
Ammonium Bifluoride
Antimony Oxide
Antimony Sulphide (needle)
Arsenic
Barium Carbonate
Bone Ash
Cadmium Anodes
Cadmium Carbonate
Cadmium Hydrate
Cadmium Oxide
Cadmium Sulphide
Calcium Linoleate
Calcium Stearate
Carbon Black
Caustic Potash
Caustic Soda
Ceramic Colors
Chromic Acid
Chromium Carbonate
Chromium Chloride
Chromium Oxide
Chromium Sulphate
Clays
Cobalt Driers
Cobalt Linoleate
Cobalt Resinate pp'td. & Fused
Copper Anodes
Copper Linoleate
Copper Oleate
Copper Oxide
Copper Resinate pp'td.
Cream of Tartar
Cryolite
Cyanides
Feldspar
French Ochre
Fluorspar
Glycerine
Galvanizing Salts
Hydrofluoric Acid
Hydrofluosilicic Acid
Iron Oxide
Lead Acetate
Lead Driers
Lead Linoleate
Lead Oleate
Lead Resinate
Lead Stearate
Leukonin
Magnesium Carbonate
Magnesium Oleate
Magnesium Stearate
Manganese Oxide (Black)
Manganese Oxide (Recovered)
Manganese Resinate pp'td. & Fused
Manganese Sulphate
Manganese Borate
Nickel Anodes
Nickel Ammonium Sulphate
Nickel Carbonate
Nickel Chloride
Nickel Oxide
Nickel Sulphate
Oxalic Acid
Palm Oil
Phosphoric Acid
Potassium Bichromate
Potassium Carbonate
Rochelle Salts
Rosin Oils
Sodium Antimonate
Sodium Cyanide
Sodium Fluoride
Sodium Nitrate
Sodium Silicate
Sodium Silico Fluoride
Sodium Stannate
Sodium Uranate
Sulphur
Tri Sodium Phosphate
Di Sodium Phosphate
Talc
Tartaric Acid
Tin Anodes
Tin Chloride Crystals
Tin Oxide
Toning Salts
Uranium Nitrate
Zinc Anodes
Zinc Carbonate
Zinc Linoleate
Zinc Oleate
Zinc Oxide
Zinc Resinate
Zinc Stearate
Zinc Tungate

HARSHAW CHEMICALS

U. S. Rubber Shows Loss

Report of U. S. Rubber Co. for six months ended June 30, 1930, shows net loss of $2,797,403 after interest, depreciation, dividends on minority stock of Dominion Rubber Co., Ltd., and foreign income taxes. This compares with net profit of $568,641, equal to 87 cents a share on 651,091 shares of 8% preferred stock in first six months of 1929. The provision for depreciation, amounting to $3,730,793 in the first half of current year, is an increase of $563,356 over that charge in the similar period of previous year.

Net sales for first half of 1930, after all discounts and allowances amounted to $75,206,983, against $86,073,346 in the corresponding period of previous year.

Statement of current assets and current liabilities as of June 30, 1930, compares as follows:

	1930	1929	1928	1927
Current Assets				
Cash	$6,948,849	$7,822,167	$8,378,521	$8,146,433
Deposit with trustee	15,000,000	.....	.....	.....
Accts & notes rec, less res	32,432,604	40,481,782	44,964,073	46,007,454
Inventories	68,410,920	74,786,891	65,810,237	95,715,951
Total current assets	$122,792,373	$123,090,840	$119,152,831	$149,869,838
Current Liabilities				
Bank loans	$2,000,000	$2,500,000	$17,750,000	$17,550,000
Accts, notes & accept	34,638,034	16,025,090	20,958,436	20,626,450

International Paper & Power Co. and subsidiaries for quarter ended June 30, 1930, shows net income of $601,056 after depreciation, amortization, interest, federal taxes and dividends on preferred and minority common stocks of subsidiaries, equivalent to 66 cents a share on 914,163 shares of 7% preferred stock. This compares with $670,055, or 73 cents a share on 913,601 shares of 7% preferred stock, in preceding quarter and $927,641, or $1.02 a share on 905,640 shares of 7% preferred stock, in June quarter of 1929.

The American Agricultural Chemical Co. reports net profits from operations after reserves for discounts, freights and receivables and after deduction of depreciation and depletion, at the same rates as last year, amounts to $2,228,875. After providing for interest charges on funded debt, there remains a net income of $1,507,366, or $5,30 per share on pref. stock, which is an improvement of $803,588, or $2.83 per share, over the fiscal year 1929.

New England Aniline Works, Inc., Boston, reports for end of 1929 as follows: Assets: real estate, $239,658; machinery, $42,500; accounts receivable, $7,340; cash, $1; securities, $100,000; profit and loss, $28,821; total, $418,321. Liabilities: capital stock (only shares with par value), $15,000; mortgages, $52,500; accounts payable, $821,500; shares without par value, $350,000; total, $418,321.

Amalgamated Leather Co. reports for six months ended June 30, 1930, profit of $13,015 after depreciation, interest, etc., but before federal taxes. In first half of 1929, company reported net profit of $36,128 after depreciation, interest and federal taxes, equal to 72 cents a share (par $100) on 50,000 shares of 7% preferred stock.

United Chemicals, Inc., declares regular quarterly dividend of 75 cents on $3 participating preferred, payable September 2 to stock of record August 15.

Atlantic Refining Co. declared the usual extra dividend of 25 cents and the regular quarterly dividend of 25 cents, both payable September 15 to stock of record August 21.

Humble Oil & Refining Co. declares the regular quarterly dividend of 50 cents, payable October 1 to stock of record August 30.

Virginia-Carolina Chemical Corp.

Virginia-Carolina Chemical Corp. and subsidiaries, for year ended June 30, 1930, shows net profit of $1,407,003, after depreciation, depletion, provision for doubtful accounts, and federal taxes, equivalent, after 7% prior preference dividends, to $2.63 a share earned on 213,392 shares of 6% participating preferred stock on which unpaid dividends amounted to 13% on June 30, last. This compares with $1,515,501, or $3.05 a share, on the 6% participating preferred stock in preceding fiscal year.

Consolidated income account for year ended June 30, 1930, compares as follows:

	1930	1929	1928	1927
*Gross	$3,925,182	$3,925,840	$4,848,143	$2,005,157
†Gen ext, etc	2,283,268	2,130,431	2,127,041	2,128,273
Oper profit	$1,641,914	$1,795,409	$2,721,102	‡ $123,116
Other income	696,289	629,688	552,150	539,169
Total inc	$2,338,203	$2,425,097	$3,273,252	$416,053
Depreciation	831,200	809,596	762,550	635,906
Federal tax	100,000	100,000	.....	.....
Net profit	$1,407,003	$1,515,501	$2,510,702	‡$219,853
Pr pfd divs	844,725	863,450	896,199	934,826
Pt pfd divs	426,111	639,167	.....	.....
Surplus	$136,167	$12,884	$1,614,503	§$1,154,679

*After manufacturing expenses and depletion of mines. †Includes provision for doubtful accounts, etc. ‡Loss. §Deficit.

Colgate-Palmolive-Peet Co. declares the regular quarterly dividends of 62½ cents on the common and $1.50 on the preferred. The common dividend is payable October 15 to stock of record September 20 and the preferred October 1 to stock of record September 10.

Report of National Oil Products Co. and its subsidiary, Metasap Chemical Co., for six months ended June 30, 1930, shows consolidated net income of $132,051 after depreciation, federal taxes, etc., equivalent, after 7% preferred dividends, to $3.83 a share on 30,000 no-par shares of common stock. This compares with $45,757 or 94 cents a common share in first six months of 1929.

Consolidated income account for six months ended June 30, 1930, follows: Net sales $1,572,419; costs, depreciation and expenses $1,426,875; balance $145,544; other income $4,656; total income $150,200; federal taxes $18,149; net income $132,051; preferred dividends $17,165; common dividends $30,002; surplus $84,884.

The Tide Water Associated Oil Company reports a consolidated net profit for the first six months of 1930 of $5,595,635 after deduction of minority interests' proportion of profits, depreciation, depletion and Federal taxes, equivalent after preferred dividend requirements, to 58 cents a share on the 5,843,937 shares of common stock outstanding at the close of the period.

Applications to List

Monsanto Chemical Works, 6,248 additional shares of common stock without par value.

Federal Water Service Corp., 10,000 additional shares of Class A stock without par value.

The International Nickel Co. of Canada, Ltd., 825,815 additional shares of common stock without nominal or par value.

Stock Exchange Listings

Pan American Petroleum & Transport Co.—58,278 additional shares of Class B common stock ($50 par value).

The Commonwealth & Southern Corp.—46,000 additional shares of preferred stock, $6 series of no-par value.

Union Oil Co. of California—43,044 additional shares of capital stock ($25 par value).

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Columbian Carbon Income

Columbian Carbon Co. and subsidiaries report for quarter ended June 30, 1930, net income of $783,175 after federal taxes, depreciation, depletion and minority interests, equivalent to $1.57 a share on 498,505 shares of no-par stock. This compares with $810,005 or $1.62 a share on 498,505 shares in preceding quarter and $1,025,632 or $2.24 a share on 457,344 shares in June quarter of previous year.

Net income for six months ended June 30 totaled $1,593,180 after above charges, equal to $3.19 a share on 498,505 shares against $2,085,590 or $4.57 a share on 457,344 shares outstanding in first half of previous year.

Consolidated income account for quarter ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*
Net after federal tax	$1,237,187	$1,656,391	$1,039,683
Depreciation and depletion	381,401	546,857	354,725
Apl. to min. interest	72,603	83,902	25,639
Net income	$783,175	$1,025,632	$659,319

Six months ended June 30:

	1930	*1929*	*1928*
Net after federal tax	$2,492,163	$3,254,760	$2,071,021
Depreciation and depletion	771,447	1,013,422	715,228
Apl. to min. interest	127,536	155,748	25,639
Net income	$1,593,180	$2,085,590	$1,330,154

Certain-Teed Products Corp. and subsidiaries report for six months ended June 30, 1930, net loss of $756,938 after depreciation, depletion, interest, federal taxes, etc., comparing with net loss of $665,478 in first half of 1929.

Net loss for quarter ended June 30, was $206,374 after above charges comparing with net loss of $550,564 in preceding quarter and net loss of $81,904 in June quarter of previous year.

Consolidated income account for six months ended June 30, 1930, compares as follows:

	1930	*1929*	*1928*
Gross prof aft dpr and dpl	$1,863,171	$1,943,201	$2,251,956
Other income	51,923	16,046	70,717
Total income	$1,915,094	$1,959,247	$2,322,673
Cost exp. and bk. int	2,301,632	2,232,544	2,050,510
Bond interest	355,265	374,558	220,770
Federal taxes	11,706	22,200	13,330
Sundry adjust. (debit)	3,429	†4,577	†2,504
Net loss	$756,938	$665,478	*$40,567

*Net income. †Credit.

MacAndrews & Forbes Co. for quarter ended June 30, 1930, shows net profit of $252,395 after expenses, federal taxes and company's proportion of results of operation of subsidiaries, equivalent after dividend requirements on 6% preferred stock, to 65 cents a share on 339,600 no-par shares of common stock. This compares with $255,763 or 66 cents a share on 339,600 common shares in preceding quarter and $291,844 or 68 cents a share on 383,539 shares in June quarter of 1929.

Calumet & Arizona Mining Co. including New Cornelia Copper Co. reports for quarter ended June 30, 1930, gross income from sales and other sources of $3,719,131 and profit before depreciation and depletion of $844,781, comparing with gross of $4,071,559 and profit of $1,037,377 in preceding quarter and gross of $4,723,751 and profit of $805,325 in June quarter of 1929.

Owens-Illinois Glass Company and subsidiaries—six months ended June 30: report net profit after charges and Federal taxes $1,871,791, equal after preferred dividends to $1.78 a share on the common stock, compared with $2,252,220, or $2.43 a share last year.

Sinclair Consolidated Oil Corporation retires all of the outstanding balance of its three-year 6 per cent first lien collateral gold bonds, amounting approximately to $15,400,000.

Corn Products Refining Co. applies to Chicago Board of Trade to list $25,000,000 of preferred stock and $63,250,000 of common stock. Application will be voted on Wednesday.

Vanadium Corp. Earnings

Vanadium Corp. of America reports net profit for the six months as $1,250,237, or $3.30 a share, against $1,177,688, or $3.12 a share in the first six months of 1929. The income statement shows $743,045 profit from other income, representing income from commercial interest and discount, dividends, rent and profit on resale of company's own stock. In the first half of 1929, 1928, and 1927, when other income included no stock resale profit, it was $126,388, $106,493 and $83,862, respectively, or an average for the three years of slightly more than $100,000.

Vanadium's earnings for the first half, including income from securities held but exclusive of profit on resale of its own stock, apparently were about $650,000, or $1.72 a share.

Simms Petroleum Co. and subsidiaries report for quarter ended June 30, 1930, net loss of $3,208 after interest, drilling costs, depreciation, depletion, etc. This compares with net loss of $37,554 in preceding quarter and net profit of $475,098, equal to 57 cents a share (par $10) on 838,962 shares in June quarter of 1929.

Net loss for six months ended June 30 amounted to $40,762 after above charges, comparing with net profit of $417,747, equal to 50 cents a share on 838,962 shares in first half of previous year.

Atlas Powder Company declares a dividend of $1.00 per share on the no-par value common capital stock payable in cash September 10, 1930 to stockholders of record at the close of business on August 29, 1930.

Monsanto Chemical Works declares usual quarterly cash dividend of 31¼c per share and stock dividend of 1½% October 1, 1930 to stockholders of record September 10, 1930.

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American Hide & Leather Loses

American Hide & Leather Co. and United States subsidiary companies for year ended June 28, 1930, shows net loss of $68,144 after interest, depreciation and inventory adjustments. This compares with net loss of $1,594,394 in preceding year.

Consolidated income account for year ended June 28, 1930, compares as follows:

	Year ended June 28, 30	*Year ended June 30, '29*
Net sales	$7,308,487	$10,460,283
Costs, expenses and depreciation	6,636,548	11,359,758
Profit	$371,939	†899,475
Other income	26,291	175,941
Profit	$398,230	†$723,534
Interest	94,086	178,150
Other charges	*372,288	692,710
Net loss	$68,144	$1,594,394

*Includes inventory, adjustments, idle plant expenses and losses on sale of fixed assets ,etc. †Loss.

United States Gypsum Co. and subsidiaries report for six months ended June 30, 1930, net income of $2,891,750 after depreciation, federal taxes, etc., equivalent after dividend requirements on 7% preferred stock, to $2.24 a share (par $20) on 1,170,370 shares of common stock. This compares with $2,329, 244 or $1.76 a share on common in first half of 1929, computed on above share basis.

Consolidated balance sheet as of June 30, 1930, shows current assets of $16,550,813 and current liabilities of $1,621,617 comparing with $15,545,294 and $4,016,596 respectively, on June 30, 1929. Profit and loss surplus amounted to $33,075,806 against $28,832,153.

Company declared the regular quarterly dividends of 40 cents on the common and $1.75 on the preferred, both payable September 30 to stock of record September 15.

Calahan Zinc-Lead Co. reports for quarter ended June 30, 1930, a loss of $18,360 after development costs, expenses, etc., but before depreciation and depletion, comparing with loss of $5,643 in preceding quarter and loss of $7,236 in June quarter of previous year.

Six months ended June 30, loss amounted to $24,003 before depreciation and depletion, against loss of $32,808 in first half of 1929.

International Salt Co. declares an initial dividend of 75 cents on new common stock, payable October 1 to stock of record September 15. Three months ago a dividend of $2 on old common was declared against $1.50 previously. In June, company split stock three for one and offered an additional new share at $36 for each three shares of new stock held. Stockholders subscribed for approximately 95 per cent of the 60,000 no-par capital shares. The remaining 5 per cent of new stock was taken by the underwriters. The proceeds of the financing will be used to liquidate bank loans, reducing interest charges approximately $100,000 a year.

McKesson & Robbins, Inc., declares a quarterly dividend of 25 cents on common stock, placing it on a $1 annual basis against $2 previously. The regular quarterly dividend of 87½ cents on preference stock also was declared. Both dividends are payable September 15 to stock of record September 5.

National Enameling & Stamping Co., Inc., reports for six months ended June 30, 1930, net loss of $13,542 after depreciation, taxes, etc., comparing with net income of $164,686, or $1.05 a share on 155,918 no-par shares of common stock in first half of 1929.

Sales of General Printing Ink

General Printing Ink Corp. and subsidiaries report for quarter ended June 30, 1930, net profit of $195,704 after charges and federal taxes, equivalent after allowing for dividend requirements on the $6 no-par preferred stock, to 71 cents a share on 185,000 shares of no-par common stock, comparing with $217,457 or 82 cents a share in the preceding quarter.

Net profit for the six months ended June 30, 1930, amounted to $413,161 after charges and federal taxes, equal to $1.53 a share on the common stock.

Consolidated income account for quarter ended June 30, the preceding quarter and six months ended June 30, 1930, follows.

	Quar end June 30, 1930	*Quar end March 31, 1930*	*6 mos end June 30, 1930*
Net sales	$2,419,581	$2,557,797	$4,977,378
Costs and expenses	2,191,340	2,308,375	4,499,715
Operating profit	$228,241	$249,422	$47,7663
Other income	29,482	33,999	63,482
Total income	$257,723	$283,421	$541,145
Other deductions	35,919	37,842	73,762
Federal taxes	26,100	28,122	54,222
Net profit	$195,704	$217,457	$413,161

Consolidated Chemical Industries, Inc., reports the net profit of the company for the first six months of this year, before deducting depreciation and income taxes, amounted to $430 160.33, with a final net profit of $313,341.37, which is equivalent to $3.04 per annum on the total number of shares of Class "A" stock outstanding. This compares with a final net profit for the first six months of 1929 of $298,533.43. The final net profit for the quarter just passed, which amounted to $186,191.85, represents the best quarterly period recorded.

American Zinc, Lead & Smelting Co. votes (a) to change the common stock authorized from 200,000 shares of $25 par to a like number of no-par shares; (b) to reduce the capital stock by $5,000,000 being the par value of the common stock; and (c) to increase the capital stock by addition of not more than 800,000 no-par common shares.

At a previous meeting, stockholders authorized directors to purchase preferred stock for retirement at not more than par, $25, and accumulated dividends, now totaling $49.50 per share.

Vulcan Detinning Co. reports for quarter ended June 30, 1930, net income of $75,768 after depreciation, taxes, etc., equivalent after dividend requirements on 7% preferred stock, to $1.22 a share on 32,258 shares of common stock. This compares with net income of $110,445 in the preceding quarter, equal after preferred dividend requirements to $2.21 a share on the combined 20,000 shares of common and 12,258 shares of Class A common stocks then outstanding and net profit of $155,889 or $3.52 a share on the combined 32,258 common shares outstanding in June quarter of 1929.

Earnings At a Glance

	6 Month Period	
	1930	**1929**
Air Reduction	*3.64*	3.61
Amer. Com. Al.	.45	1.42
Atlas Powder	1.74	3.54
Bon Ami	a1.87	1.96
Columbian Carbon	3.19	4.57
Commercial Solvents	.60	.72
Diamond Match	*2.24*	1.76
Du Pont	2.84	3.84
Hercules Powder	1.99	2.74
Johns Manville	1.97	3.70
Mathieson Alkali	1.57	1.75
N. J. Zinc	1.57	3.70
Owens Illinois	1.78	2.43
Texas Gulf Sulphur	2.93	2.93
United Carbon	*1.98*	1.85
U. S. Industrial Alcohol	1.47	5.30

a. Estimated

The Industry's Stocks

1930 Aug. High	1930 Aug. Low	1930 Aug. Last	1930 High	1930 Low	1929 High	1929 Low	Sales In Aug.	Sales During 1930	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share-$	1929	1928
NEW YORK STOCK EXCHANGE															
126¼	104¼	126¼	156¾	103¼	223¾	77	109,100	1,336,600	Air Reduction	No	770,000	$3.00		5.63	4.61
271¾	241¼	271½	343	232	354¾	197	36,700	339,500	Allied Chem. & Dye	No	2,286,000	6.00		12.60	11.12
126	125	...	126½	121	125	118½	400	9,800	7% cum. pfd.	100	393,000	7.00		76.84	68.63
7⅜	5¼	5¼	10⅞	4⅞	23⅜	4	14,900	78,400	Amer. Agric. Chem.	100	333,000			Nil	1.59
39⅜	29	...	39	23	73½	18	6,800	82,900	6% cum. pfd.	100	285,000			2.47	7.86
14¼	10⅛	...	33	9¼	55	20	23,800	127,400	Amer. Com. Alc.	No	382,000	1.60		4.78	3.39
32⅜	28¾	30	51¼	28¾	81¾	31½	13,800	257,400	Amer. Metal Co., Ltd.	No	868,000	3.00		3.23	3.58
108	108	108	117	103	135	106	200	1,500	conv. 6% cum. pfd.	100	69,000	6.00		47.53	26.52
69½	63	59⅜	79½	53	130½	162	63,700	716,500	Amer. Smelt. & Refin.	No	1,830,000	4.00		10.02	8.24
139½	135¼	...	141	133½	16⅛	15⅞	900	4,200	7% cum. pfd.	100	500,000	7.00		43.66	37.17
9	7	7½	22½	6⅝	92⅜	25½	5,200	257,500	Amer. Solvents & Chem.	No	181,000			2.56	1.69
20	17¾	...	33⅛	17¾	138	123½	1,900	46,200	conv. $3 cum. pfd.	No	113,000	3.00		8.01	6.71
10⅛	8⅛	9½	17⅞	6	49½	7	1,600	271,000	Amer. Zinc. Lead, & Smelt.	25	200,000		11 mo.	0.76	Nil
62	62	62	79¾	50½	111¼	49¾	100	23,500	6% cum. pfd.	25	97,000	6.00	11 mo.	7.41	5.99
51¼	44¼	45½	81½	44¼	140	70	264,400	5,714,400	Anaconda Copper Mining	50	8,828,000	7.00	1928	6.63	3.37
22	19½	21½	29¼	19½	49½	18½	14,300	222,200	Archer Dan. Midland	No	550,000	2.00	3 mo.	0.71	4.02
38⅜	33¼	34⅜	51⅜	30½	77⅞	30	73,200	1,535,000	Atlantic Refining Co.	25	2,678,000	1.00		6.10	5.58
72¼	69½	71	106	62	140	67	2,000	115,300	Atlas Powder Co.	No	260,000	4.00		7.66	4.39
102¼	101	...	106	101	106½	90	160	4,260	6% cum. pfd.	100	90,000	6.00		28.25	18.76
2¼	1½	1½	5¼	1½	12⅜	4⅜	4,700	53,500	Butte & Sup. Mining	10	290,000	2.00		Nil	0.28
2⅜	2¼	2¼	4½	2¼	9½	2	1,500	78,400	Butte Copper & Zinc	5	600,000			0.34	0.31
8	6¼	6½	15⅞	5¼	32	10⅞	2,300	106,000	Certain-Teed Products	No	400,000			Nil	Nil
25¼	25¼	25½	45⅛	20	81½	45½	100	4,900	7% cum. pfd.	100	63,000		9 mo.	11.38	6.77
59½	55	59	64⅞	50	90	40	5,000	58,800	Colgate-Palmolive-Peet	No	2,000,000	2.50		4.03	2.60
141½	117½	139½	199	108	344	105	43,000	716,900	Columbian Carbon	No	457,000	4.00		7.84	6.39
27	22	26½	38	20½	63	20⅛	296,500	4,694,000	Comm. Solvents	No	2,435,000	1.00		1.51	1.32
95½	83¼	94⅜	111⅜	83⅜	126⅛	70	79,600	446,000	Corn Products	25	2,530,000	3.00		5.49	4.35
149	146¾	...	149	137	144¾	137	460	6,020	7% cum. pfd.	100	250,000	7.00		62.59	50.98
28⅜	24⅜	27½	43⅜	24⅜	69½	21½	12,800	350,200	Davison Chem. Co.	No	504,000	1.00		3.34	1.58
24	23	24	42⅜	21⅜	64⅞	24	500	52,000	Devoe & Raynolds "A"	No	160,000	2.40		4.52	5.95
100	99	...	115½	99	115½	102	80	960	7% cum. 1st pfd.	100	16,000	7.00		67.59	64.02
118⅛	102	118	145¼	95⅜	231	80	160,700	1,743,400	Dupont de Nemours	20	10,339,000	4.00		6.99	5.97
120	108⅜	...	121	114½	119½	107½	1,800	29,200	6% cum. deb.	100	978,000	6.00		78.54	69.06
220½	193½	219⅞	255½	175⅜	264½	150	89,600	973,700	Eastman Kodak	No	2,263,000	5.00	1928	9.60	9.61
130	128	...	128½	125⅛	128	117	30	1,190	6% cum. pfd.	100	62,000	6.00	1928	326.17	326.68
45⅞	39¼	44¼	55½	37	54⅛	23¾	49,500	908,700	Freeport Texas Co.	No	730,000	4.00		5.60	4.49
46	38⅜	40	46	38⅜	94¾	42¼	21,700	700,100	General Asphalt Co.	No	411,000	4.00		3.65	2.79
18½	14⅜	16	38	14⅜	64¼	26	36,700	448,600	Glidden Co.	No	688,000	2.00		3.57	3.55
95	92	92	105¼	90	106¼	95	180	6,950	7% cum. prior pref.	100	74,000	7.00		39.51	32.69
68	67	67	85	60	130	80	200	8,400	Hercules Powder Co.	No	568,000	3.00		5.95	22.04
120	118½	...	123⅜	117	121	112½	250	1,990	7% cum. pfd.	100	114,000	7.00		38.16	35.35
94	81	81½	124	73	135	68½	1,400	50,500	Industrial Rayon	No	191,006			7.26	8.68
6⅜	5½	6¼	8½	4½	17⅞	4	6,900	140,200	Intern. Agric.	No	444,000			0.79	1.66
63	55	...	67¼	52	88½	40	1,800	21,000	7% cum. prior pfd.	100	100,000	7.00		10.54	14.47
24¼	20¼	24	44⅜	20⅛	72⅛	25	1,500,100	8,186,900	Intern. Nickel	No	13,781,000	1.00		1.47	1.05
41	36¼	40¼	45⅞	36	80½	61½	85,500	37,125	Intern. Salt	100	61,000	6.00		11.32	7.23
96	79½	96	148⅜	70	242⅜	90	136,300	1,536,800	Johns-Manville Corp.	No	750,000	3.00		8.09	6.75
18	17	17	25	17	42	20	1,300	2,300	Kellogg (Spencer)	No	598,000	1.60		2.36	3.42
71	62¼	71	81¼	52¼	113¼	40	14,700	426,400	Liquid Carbonic Corp.	No	311,000	4.00		6.12	6.76
21⅜	14½	17⅜	57⅜	14½	59	21⅛	33,100	271,600	McKesson & Robbins	No	1,117,000	2.00	6 mo.	1.50	3.77
39¼	37	38¼	49¼	35	63	40	2,600	24,340	conv. 7% cum. pref.	50	426,000	3.50	6 mo.	5.13	11.51
30¼	29½	30	39¾	24¼	46	30½	900	271,600	MacAndrews & Forbes	No	384,000	2.60	9 mo.	2.21	3.30
42⅜	35½	42½	51⅜	32⅜	72⅜	29	14,600	564,800	Mathieson Alkali	No	637,000	2.00		3.31	2.95
130½	123	130½	130½	115	125	120	100	570	7% cum. pfd.	100	28,000	7.00		93.91	84.50
47	39	47	63¾	35	80½	47	32,300	227,500	Monsanto Chem.	No	404,000	1.25		2.83	3.76
41	36¼	31⅜	45⅜	36	58	15	16,000	172,300	National Dist. Prod.	No	275,000	2.00		1.32	Nil
130	124¼	130	189½	124½	210	129¼	800	75,800	National Lead	100	310,000	5.00		25.49	11.45
143	141	143	143	138¼	141½	138	510	5,600	7% cum. "A" pfd.	100	244,000	7.00		41.95	24.10
118	118	118	119½	116	23⅜	115	180	2,810	6% cum. "B" pfd.	100	103,000	6.00		82.47	40.34
50	49½	...	85	50½	103	143	2,200	10,300	Newport $3 cum. conv. "A"	50	130,000	3.00		29.79	5.55
44	38	41⅜	55⅜	26½	60⅞	22	27,300	465,200	Penick & Ford	No	434,000			3.97	2.56
109⅜	109⅜	109⅜	110	107	110	100	10	180	7% cum. pfd.	100	33,000	7.00		73.33	53.42
75⅜	69¼	75⅞	78⅜	52⅜	98	43¼	41,450	420,750	Procter & Gamble	No	6,410,000	2.00	6 mo.	1.82	2.96
21⅞	19¼	19¼	21⅞	19⅜	30¾	20	9,700	667,200	Pure Oil Co.	25	3,038,000	1.50		3.06	0.97
112¼	112¼	...	114¼	110½	116	108	360	4,940	8% cum. pfd.	100	130,000	8.00		40.09	16.82
52⅜	45¾	49⅞	56½	45¾	64	43¼	71,700	607,100	Royal Dutch		993,000		1928	24.09%	24.10%
40⅜	38¼	40½	57⅛	33⅛	94	38½	7,000	271,400	St. Joseph Lead	10	1,952,000	2.00	6 mo.	2.22	2.30
19⅜	14	14⅜	25½	14	31⅞	19	104,800	632,400	Shell Union Oil	No	13,069,000	1.40	9 mo.	1.39	2.04
65½	60	60⅜	75	55½	31⅞	51½	60,900	1,047,100	Standard Oil, Calif.	No	13,016,000	2.50	1928	3.66	3.19
74⅜	67½	70⅛	84⅞	58	83	48	849,400	9,566,500	Standard Oil, N. J.	25	25,419,000	1.00	1928	4.43	1.52
32¼	30⅞	31⅜	40⅜	30	48⅛	31⅜	83,900	1,854,800	Standard Oil, N. Y.	25	17,380,000	1.60	1928	2.28	0.67
12	11	11⅛	17	10⅞	20⅛	9½	4,300	280,700	Tenn. Copper & Chem.	No	857,000	1.00	1928	1.48	0.51
53⅜	51	51⅞	60½	50½	71⅜	50	55,100	1,174,700	Texas Corp.	25	9,851,000	3.00		4.91	5.34
59⅛	55	58¼	67⅜	48¼	85½	42¼	63,100	1,062,700	Texas Gulf Sulphur	No	2,540,000	4.00		6.40	5.72
79½	66½	79⅜	106⅜	60⅛	140	59	241,400	3,771,900	Union Carbide & Carb.	No	9,208,000	2.40		3.94	3.72
52⅜	43½	52	84	40½	111⅜	40½	64,200	1,203,300	United Carbon Co.	No	393,000			1.75	1.99
71⅜	59	71	139⅜	59	243⅜	95	22,100	940,500	U. S. Ind. Alc. Co.	No	373,000	6.00		12.63	10.29
103⅛	77⅞	84½	143⅛	49⅞	116⅛	37½	2,415,400	4,804,100	Vanadium Corp. of Amer.	No	379,000	3.00		5.04	4.53
4⅜	4⅛	4⅛	8⅛	4	24½	3⅜	5,600	126,300	Virginia Caro. Chem.	No	479,000			Nil	0.69
24½	23¼	...	34½	22	65⅛	15	3,700	124,400	6% cum. part. pfd.	100	214,000			3.06	7.57
79	77¼	...	82⅜	75	97½	69	400	38,600	7% cum. prior pfd.	100	144,000	7.00		12.35	20.09
43½	39	39½	59½	30⅜	94⅛	30	1,400	40,000	Westvaco Chlorine Prod.	No	123,000	2.00		4.32	3.60
NEW YORK CURB															
6	6	6	13	5⅛	23	6	100	3,410	Acetol Prod. conv. "A"	No	60,000		1928	2.27	
23	18	...	34	19	43½	15	700	16,650	Agfa Ansco Corp.	No	300,000			Nil	
254½	215	235	356	210	539½	146	3,200	37,200	Aluminum Amer.	No	1,473,000		1928	8.03	5.00
110	109½	109½	110	105½	110	103	1,900	34,900	6% cum. pfd.	100	1,473,000	6.00	1928	14.04	10.26
139	138	...	232	108	280	99¼	700	12,600	Aluminum Ltd.	No	573,000		1928	0.02	
22⅛	18½	19⅛	37	17⅛	80	20½	66,200	1,545,900	Amer. Cyanamid "B"	No	1,260,000	1.60		1.56	3.68
34	29½	29½	43½	15½	45½	1	4,800	200,300	Anglo-Chilean Nitrate	No	1,757,000		6 mo.	Nil	Nil

1930 Aug. High	1930 Aug. Low	1930 Aug. Last	1930 High	1930 Low	1929 High	1929 Low	Sales In Aug.	Sales During 1930	ISSUES	Par $	Shares Listed	An. Rate	Earnings $-per share-$ 1929	Earnings $-per share-$ 1928
2⅞	2⅝	2⅞	6½	2⅝	35½	3	300	9,300	Assoc. Rayon Corp.	No	1,200,000			
51½	46	46	60⅜	38⅝	87½	30½	2,000	33,100	conv. 6% cum. pfd.	100	200,000	6.00		
1⅞	1⅞	1⅞	5¼	1⅝	10⅜	3½	100	15,300	Brit. Celanese Am. Rcts.	105	2,200,000			
63	60	62½	90	60	122	80	875	12,700	7% cum. part. 1st pfd.	100	115,000	7.00	15.51	12.00
...	...	...	90	79½	100	80		3,385	7% cum. prior pfd.	100	115,000	7.00	27.02	20.53
20	14	...	20	12	50	12	2,100	11,300	Celluloid Corp.	No	195,000		1928 1.29	0.86
96	92	...	96	70	110	82	175	1,150	7% cum. 1st part. pfd.	No	24,000	7.00	1928 17.33	9.96
10	10	10	13¼	10	25½	12	200	6,400	Courtaulds, Ltd.	1£	24,000,000		1928 19.88%	34.88%
70⅜	68	70⅜	100	68	100⅛	50	700	6,200	Dow Chemical	No	480,000	2.00		
127⅛	115⅛	119½	166¾	117⅛	209	115	10,500	310,100	Gulf Oil	25	4,415,000	1.50	9.83	8.06
12	12	12	23	12	41½	17⅜	300	3,500	Heyden Chemical Corp.	10	150,000		1928 2.02	1.02
4⅜	4⅜	4⅜	7	4⅜	11⅛	6⅜	100	1,900	Imperial Chem. Ind.	1£			1928 12.15%	10.23%
9½	9½	9½	16	8⅜	27	13½	100	5,500	Monroe Chem.	No	100,000	1.50	2.54	1.76
22⅞	19⅞	21	42	19⅞	52	21½	6,300	60,300	Newport Co.	No	405,000	2.00	3.28	1.30
66½	66	...	79½	66	111⅜	65	600	1,800	Shawinigan W. & P.	No	1,867,000	2.50	2.35	2.17
77½	74	74	85	74	105⅜	75½	125	385	Sherwin-Williams Co.	25	594,000	4.00	7.85	6.99
17⅞	15¼	15¼	34½	15¼	48¼	14⅜	2,700	110,210	Silica Gel Corp.	No	600,000			
50⅜	48½	49½	59⅜	47⅜	63	45	118,300	1,234,600	Standard Oil Ind.	25	13,927,000	2.50	1928 8.33	3.26
30½	28⅛	30½	34⅛	28	149⅞	121¼	4,500	45,700	Swift & Co.	100	1,500,000	8.00	8.71	9.87
7½	7	7¼	22¼	6⅜	550	111	2,700	31,480	Tubize "B"	No	79,000	10.00		
33	32⅞	...	44	30	61½	25½	600	23,000	United Chemicals $3 cum. part. pfd.	No	120,000	3.00	2.61	
...	...	...	...	...	90⅜	36⅛	...	.....	U. S. Gypsum Co.	20	765,000	1.60	3.98	7.21
									CLEVELAND					
95	94	94	138	95	98¾	92	131	3,275	Cleve-Cliffs Iron	No	498,000	5.00	1928 8.41	3.80
...	...	...	...	...	105¼	75	...	.....	Sherwin-Williams Co.	25	594,000	4.00	7.85	6.99
									CHICAGO					
42½	41	42	46¾	41	52	36	1,700	21,315	Abbott Labs.	No	120,000	2.00	4.92	4.00
...	...	...	...	...	26½	12	.....	.....	Monroe Chem.	No	100,000	1.50	2.54	1.76
25	20	...	...	...	51	30	468	3,863	$3.50 cum. pref.	No	30,000	3.50	13.35	10.32
30¾	28⅛	30	33¼	28	145	123	12,400	.....	Swift & Co.	100	1,500,000	8.00	8.71	9.87
									CINCINNATI					
75	70	75	78⅛	65	100	44¾	2,664	50,989	Procter & Gamble	No	6,410,000	2.00	6 mo. 1.82	2.96
									PHILADELHPIA					
...	...	...	100	90	116	89	.....	900	Pennsylvania Salt	50	150,000	5.00	10.64	8.27
									MONTREAL					
25	25	25	...	...	22½	2	25	7,853	Asbestos Corp.	No	200,000		Nil	Nil
3	½	½	...	...	68	12	350	2,546	7% non-cum pfd.	100	75,000		0.24	3.35
5⅜	4	4¼	12¼	4	45	5	3,100	10,870	Can. Ind. Alcohol "A"	No	969,000	1.52	1.90	2.87
69	63	65¼	82⅛	61¼	111	65	14,866	141,450	Shawinigan W. & P.	No	2,178,000	2.50	2.35	2.17

The Industry's Bonds

1930 Aug. High	1930 Aug. Low	1930 Aug. Last	1930 High	1930 Low	1929 High	1929 Low	Sales In Aug.	Sales During 1930	ISSUE	Date Due	Int. %	Int. Period	Author-ized $
									NEW YORK STOCK EXCHANGE				
105	102¾	104½	105	102¾	106½	103	75	614	Amer. Agric. Chem., 1st ref. s. f. 7½s.	1941	7½	F. A.	30,000,000
99½	97¼	...	100½	96	99¾	99¾	24	790	Amer. Cyan. deb. 5s.	1942	5	A. O.	5,000,000
106¾	105¾	106¾	177	94¾	135	95	381	4,259	Amer. I. G. Chem. conv. 5½s.	1949	5½	M. N.	30,000,000
104	102	104	102¾	101¼	102¾	98	391	2,474	Am. Smelt & Ref. 1st. 5s. "A"	1947	5	A. O.	38,000,000
97½	96½	96½	98½	90½	100	79	84	1,521	Anglo-Chilean s. f. deb. 7s.	1945	7	M. N.	16,500,000
103	102	102½	103	100	103½	99¾	46	640	Atlantic Refin. deb. 5s.	1937	5	J. J.	15,000,000
103	102¼	103	104¼	100¼	103	98¼	6	259	By-Prod. Coke 1st 5½s "A"	1945	5½	M. N.	8,000,000
104½	103⅛	103¼	102½	97½	103	96½	11	190	Corn Prod. Refin. 1st s. f. 5s.	1934	5	M. N.	10,000,000
83½	77½	79	87½	74	104	76	317	2,861	Lautaro Nitrate conv. 6s.	1954	6	J. J.	
100½	99¼	100¼	100½	97¼	100¼	96	101	1,839	Pure Oil s. f. 5½% notes	1937	5½	F. A.	20,000,000
99¼	98	99¼	104	97¼	98⅞	90	194	697	Solvay Am. Invest. 5s.	1942	5	M. S.	
104⅜	104	104¼	104⅜	100	103½	100	363	3,957	Standard Oil, N. J. deb. 5s.	1946	5	F. A.	120,000,000
100½	99	99¾	104¼	98	100	91¾	411	3,095	Standard Oil, N. Y. deb. 4½s.	1951	4½	J. D.	50,000,000
102	100½	102	102½	97½	110	88	28	708	Tenn. Copp. & Chem. deb. 6s. "B"	1944	6	M. S.	5,000,000
									NEW YORK CURB				
104⅜	103⅜	104¼	104⅜	101½	103½	99⅜	95,000	704,683	Aluminum Co., s. f. deb. 5s.	1952	5	M. S.	60,000,000
100¼	99¾	...	100½	97½	98⅞	97⅜	155,000	867,500	Aluminum Ltd., 5s.	1948	5	J. J.	20,000,000
...	...	...	100½	83½	125	99		22,129	Amer. Solv. & Chem. 6½s.	1936	6½	M. S.	2,200,000
67	67	67	90	67	...	...	6,000	65,138	General Ind. Alc., 6½s.	1944	6½	M. N.	2,500,000
67	63	63	80	57	95	60	15,000	112,138	General Rayon 6s. "A"	1948	6	J. D.	5,400,000
103	102	...	103	90½	101½	97¾	115,000	615,384	Gulf Oil, 5s.	1937	5	J. D.	35,000,000
104	103	103¾	104	100	...	...	62,000	578,342	Sinking Fund deb. 5s.	1947	5	F. A.	35,000,000
103½	100⅜	103⅜	103½	95⅜	100½	93	102,000	384,631	Koppers G. & C. deb, 5s.	1947	5	J. D.	25,000,000
98	96	97⅜	98	90⅜	94¾	88½	229,000	712,447	Shawinigan W. & P. 4½s.	1967	4½	A. O.	200,000,000
97⅞	95½	97⅞	97⅞	90	...	...	136,000	293,150	4½s., series "B"	1968	4½	M. N.	25,000,000
100	99½	100	107	97	...	...	12,000	90,150	Silica Gel Corp. 6½s	1932	6½	A. O.	1,700,000
101¼	100½	100½	101½	79½	102	97½	132,000	595,804	Swift & Co., 5s.	1944	5	J. J.	50,000,000
102½	101½	102½	103½	100½	104	98	12,000	72,123	Westvaco Chlorine Prod. 5½s.	1937	5½	M. S.	2,500,000

Oxalic Acid
Chlorate Soda
Phosphorous Compounds

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The Trend of Prices

Slight Improvements Noted in Industrial Activity

Copper Shows Further Weakness—Ethyl Acetate Again Reduced—Sulfate of Ammonia Prices Finally Announced—Business Indices Forecast Slight Business Recovery.

The chemical price structure has exhibited a remarkable tenacity in holding at existing levels despite a rather serious recession in volume, due to general business conditions intensified by summer slackness. For the first time in many years the summer period has been dull and lifeless with inquiries, sales, and shipments but of a very routine nature. Here and there in the list vulnerable spots in the price situation have appeared but it is to be particularly noted that these are the exceptions rather than the rule. Acetate of lime producers have remained adamant against any further reduction, and by vacation shutdowns have eased slightly the competitive situation. Copper again weakened but indications are not lacking that the bottom has been reached and any further movement will be in the opposite direction. Tartaric acid continued to decline, carrying the price level down a cent in the past two months. Glacial acetic finally reacted to the lower prices prevailing for acetate of lime, and in a determined effort to clear the decks of surplus stocks, solvent manufacturers announced, at the close of the month, still further downward revisions on spot prices of ethyl acetate. Several of the more important grades of wax were lower despite an increasing demand from consumers. With industries such as rayon, plastics, soap, leather and paint, that might be termed large volume consumers of industrial chemicals, still operating at reduced schedules it is small wonder that the tonnages are somewhat below normal. Some definite improvement should be apparent shortly in the fertilizer field. Producers of sulfate of ammonia have taken the initiative in announcing prices and the remaining factors are expected to follow their example shortly.

Advanced	August	July
Gallic Acid	.60	.50
Rosin Grade B	$5.70	$5.60
Grades other than pale, proportionally.		
Declined		
Acid Acetic, U. S. P. carboys carlots	$11.51	$12.51
Acid Tartaric	.34½	.35
Cream of Tartar	.25¾	.26½
Ethyl Acetate, tanks, spot	.09	.097
Waxes, Candelilla	.16½	.17
Mastic	.57	.60
Kauri	.48	.50
Stearic Acid	.13½	.14

The major indices of business with a few exceptions all show a decided improvement. While the movements are slight, they are readily discernible. Of equal interest and importance is the appearance of a physiological rehabilitation of the minds of business and industrial leaders from the slough of despondency prevailing in June and July to a renewal of faith in a fairly early resumption of normal conditions. Signs are not lacking that stocks on retail shelves are rapidly becoming depleted and that fall buying is being done on an encouraging scale. The position of the farmer while far from ideal is infinitely improved over what it was a month ago. Agricultural sections are recovering their poise after the nation wide drought and farm products are bringing better prices.

Movement on the New York Stock exchange while erratic and at times bearish, in the main was upward, with the steel and public utilities in the vanguard of the upward swing and the copper stocks leading the field in the opposite direction.

The national Fertilizer Wholesale Price Index for all commodities shows a slight but possible encouraging improvement. During the five week period from July 19 through August 23, the index rose from 85.7 to 86.1, an increase of four fractional points. While the ascension is not very sharp to be sure, if it marks a definite turn from the long downward trend of commodity prices, it is indeed a hopeful sign. Some doubt, however, is expressed. Most of the gain is thought to be due to a rise in agricultural products alone as a direct consequence of the drought.

The index of steel production has shown an advance to 84.8 representing an actual rate of operations of about 66% for the steel corporation and about 51% for independents.

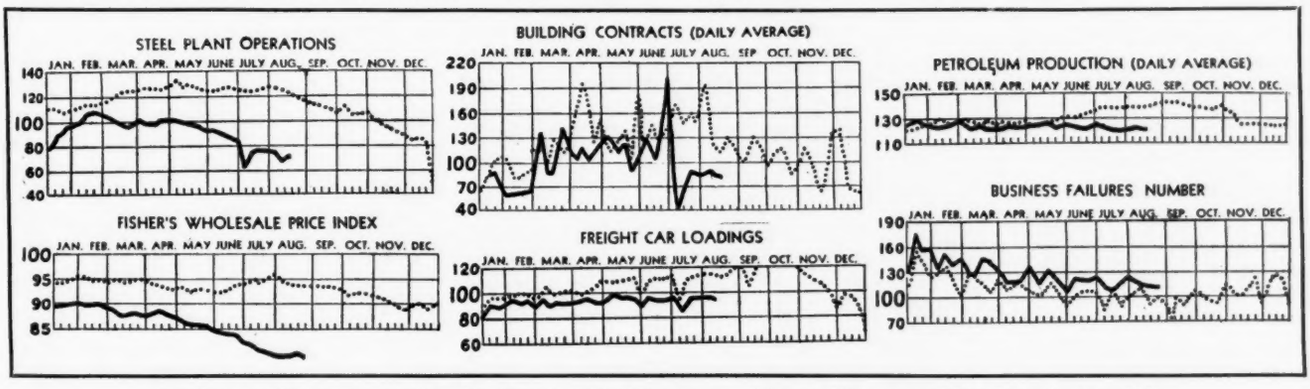
The automobile industry could not fail but make some improvement over July when most of the manufacturers were either shutdown entirely or operating with skeleton crews.

The rediscount rate at New York remains unchanged at 2½% and commercial paper at 3 @ 3½%.

Indices of Business

	Latest avail. mo.	Previous month	Year Ago
Automobile Production, July	262,363	335,477	500,840
†Brokers Loans, Aug. 1	$3,689	3,727	7,473
*Building Contracts, July	$367,528	600,528	652,436
*Car Loadings, Aug. 23	922	904	1,100
†Commercial Paper, July 31	$525	527	265
Factory Payrolls, June	90.3	94.1	109.2
*Mail Order Sales, July	$44,655	55,464	53,309
Number of Failures Dun July	2,028	2,026	1,752
*Merchandise Imports, July	$219,000	250,000	354,150
*Merchandise Exports, July	$269,000	299,000	403,360
Furnaces in Blast, % Aug. 1	50.6	56.6	68.6
*Steel Unfinished Orders	4,022	3,968	4,088

*000 omitted.
†000,000 omitted.



Business indicators prepared by the Department of Commerce. The weekly average 1923-35 inclusive = 100. The solid line represents 1929 and the dotted line 1928.

Prices Current

Heavy Chemicals, Coaltar Products, Dye-and-Tanstuffs, Colors and Pigments, Fillers and Sizes, Fertilizer and Insecticide Materials, Naval Stores, Fatty Oils, etc.

Chemical prices quoted are of American manufacturers for spot New York, immediate shipment, unless otherwise specified. Products sold f. o. b. works are specified as such. Imported chemicals are so designated. Resale stocks when a market factor are quoted in addition to makers' prices and indicated "second hands."

Oils are quoted spot New York, ex-dock. Quotations f.o.b. mills, or for spot goods at the Pacific Coast are so designated

Raw materials are quoted New York, f. o. b., or ex-dock. Materials sold f. o. b. works or delivered are so designated.

The current range is not "bid and asked," but are prices from different sellers, based on varying grades or quantities or both. Containers named are the original packages most commonly used.

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Acetone — Little change has taken place in the demand during the month but prices remain stationary and closely held. No improvement is noticeable in the rayon industry where production schedules are still but 50% normal. Some slight increase was reported from the solvent field but demand is still considerably below normal. Spot stocks in consumers' and dealers' hands remain light and any improvement in general business conditions should be reflected immediately in production and sales.

Acid Acetic — While no public announcement of further reductions in the acetate of lime market was made accumulated stocks continue to clog the industry and contribute to a noticeable weakness in the acid price structure. Manufacturers of U. S. P. glacial announce additional price concessions in the carlot carboy price. The new schedule is $11.51 cwt., with the usual ¼c differential on less than carload quantities. Keen competition continues between the natural and synthetic products. A slightly better demand was in evidence in the silk dyeing industry but entirely insufficient to relieve the competitive condition of the market.

Acid Benzoic — Despite a slackening demand no further change in prices was in evidence.

Acid Chromic — With many of the automobile factories replenishing depleted stocks after rather prolonged vacation in Detroit area, a better spot market developed during the month. Shipments under contract were likewise in better volume. Prices moved between 16c and 18c depending upon quantity and delivery point.

Acid Citric — The anticipations of producers for a fairly satisfactory demand at this time of the month were fairly well met and both the domestic and imported were moving at firm prices.

Acid Cresylic — Producing plants specially in the East have curtailed production with the result that the market has assumed a very quiet tone.

Acid Formic — Current quotations were adhered to during the month. The silk dyeing centers of Paterson and New England exhibited greater interest and the leather interests were coming into the market in greater numbers in anticipation of impoved conditions in the fall.

1929 High	1929 Low	1928 High	1928 Low		Current Market		1930 High	1930 Low
.21	.18½	.26	.18½	Acetaldehyde, drs 1c-1 wks...lb.	.18½	.21	.21	.18½
.31	.27			Acetaldol, 50 gal dr.....lb.	.27	.31	.31	.27
				Acetamide.....lb.	1.20	1.35	1.35	1.20
.24	.21	.24	.23	Acetanilid, tech, 150 lb bbl...lb.	.21	.23	.23	.21
				Acetic Anhydride, 92-95%, 100 lb cbys.....lb.	.25	.28	.29	.25
.35	.28	.35	.29	Acetin, tech drums.....lb.	.30	.32	.32	.30
.32	.30	.....	.....	Acetone.....lb.	.11	.12	.12	.11
.16	.11	.15	.13	Acetone Oil, bbls NY.....gal.	1.15	1.25	1.25	1.15
1.25	1.15	1.75	1.65	Acetyl Chloride, 100 lb cby...lb.	.55	.68	.68	.55
.68	.45	.45	.42	Acetylene Tetrachloride (see tetrachlorethane).....				
				Acids				
				Acid Acetic, 28% 400 lb bbls c-1 wks.....100 lb.	.....	3.11	3.88	3.11
3.88	3.88	3.88	3.38	Glacial, bbl c-1 wk.....100 lb.	.....	11.01	13.68	11.01
13.68	13.68	13.68	11.92	Glacial, tanks.....	.....	10.76	13.43	10.76
				Anthranilic, refd, bbls.....lb.	.98	1.00	1.00	.98
1.00	.98	1.00	.98	Technical, bbls.....lb.	.....	.80	.80	.80
.80	.80	.80	.80	Battery, cbys.....100 lb.	1.60	2.25	2.25	1.60
2.25	1.60	2.25	1.60	Benzoic, tech, 100 lb bbls....lb.	.43	.45	.53	.45
.60	.51	.60	.57	Boric, crys. powd, 250 lb bbls.....lb.	.06¾	.07¼	.07¾	.06¾
.07¼	.05¾	.11	.08¼	Broenner's, bbls.....lb.	.....	1.25	1.25	1.25
1.25	1.25	1.25	1.25	Butyric, 100% basis cbys.....lb	.85	.90	.90	.85
.90	.85	.90	.85	Camphoric.....lb.	.....	5.25	5.25	5.25
5.25	4.85	4.85	4.85	Chlorosulfonic, 1500 lb drums wks.....lb.	.04½	.05½	.05½	.04½
.05½	.04½	.16	.15	Chromic, 99%, drs extra.....lb.	.16	.18	.19	.16
.23	.17½	.30	.25	Chromotropic, 300 lb bbls....lb.	1.00	1.06	1.06	1.00
1.06	1.00	1.06	1.00	Citric, USP, crystals, 230 lb. bbls.....lb.	.46	.59	.59	.46
.70	.46	.44½	.59	Cleve's, 250 lb bbls.....lb.	.52	.54	.54	.52
.59	.52	.97	.95	Cresylic, 95%, dark drs NY..gal.	.55	.60	.70	.55
.54	.60	.70	.68	97-99%, pale drs NY.....gal.	.60	.70	.77	.60
.77	.72	.72	.72	Formic, tech 90%, 140 lb. cby.....lb.	.10½	.12	.12	.10½
.12	.10	.12	.11	Gallic, tech, bbls.....lb.	.60	.70	.55	.50
.12	.50	.55	.50	USP, bbls.....lb.	.....	.74	.74	.74
.55	.74	.74	.74	Gamma, 225 lb bbls wks.....lb.	.77	.80	.80	.77
.80	.74	1.06	1.00	H, 225 lb bbls wks.....lb.	.65	.70	.70	.65
.99	.80	.63	.57	Hydriodic, USP, 10% soln cby lb.	.....	.67	.67	.67
.72	.67	.67	.67	Hydrobromic, 48%, coml, 155 lb cbys wks.....lb.	.45	.48	.48	.45
.67				Hydrochloric, CP, see Acid Muriatic.....				
.48	.45	.48	.45	Hydrocyanic, cylinders wks...lb.	.80	.90	.90	.80
.....	.....			Hydrofluoric, 30%, 400 lb bbls wks.....lb.	.....	.06	.06	.06
.90	.80	.90	.80	Hydrofluosilicic, 35%, 400 lb bbls wks.....lb.	.....	.11	.11	.11
.06	.06	.06	.06	Hypophosphorous, 30%, USP, demijohns.....lb.	.....	.85	.85	.85
.11	.11	.11	.11	Lactic, 22%, dark, 500 lb bbls lb.	.04	.04½	.05	.04
.85	.85	.85	.85	44%, light, 500 lb bbls.....lb.	.11½	.12	.12	.11
.05½	.04½	.06	.04½	Laurent's, 250 lb bbls.....lb.	.40	.42	.42	.40
.12½	.11	.13½	.12	Malic, powd., kegs.....lb.	.45	.60	.60	.45
.42	.40	.54	.52	Metanilic, 250 lb bbls.....lb.	.60	.65	.65	.60
.60	.48	.60	.48	Mixed Sulfuric-Nitric.....				
.65	.60	.65	.60	tanks wks.....N unit	.07	.07½	.07½	.07
.07½	.07	.08	.07½	tanks wks.....S unit	.008	.01	.01	.008
.01	.008	.01½	.01	Monochloroacetic, tech bbl..lb.	.18	.21	.21	.18
.21	.18	.21	.18	Monosulfonic, bbls.....lb.	1.65	1.70	1.70	1.65
1.70	1.65	.65	.65	Muriatic, 18 deg, 120 lb cbys c-1 wks.....100 lb.	.....	1.35	1.35	1.35
1.40	1.35	1.40	1.35	tanks, wks. 100 lb.	.....	1.00	1.00	1.00
1.00	1.00			20 degrees, cbys wks...100 lb.	.....	1.45	....	1.45
....	1.45	1.80	1.70	N & W, 250 lb bbls.....	.85	.95	.95	.85
.95	.85	.95	.85	Naphthionic, tech, 250 lb.....	.....	Nom.	Nom.	.....
.59	.55	.59	.55	Nitric, 36 deg, 135 lb cbys c-wks.....100 lb.	.....	5.00	5.00	5.00
5.00	5.00	5.00	5.00	40 deg, 135 lb cbys, c-1 wks.....100 lb.	.....	6.00	6.00	6.00
6.00	6.00	6 00	6.00	Oxalic, 300 lb bbls wks NY...lb.	.11	.11¾	.11¾	.11
.11¾	.11	.11½	.10¾	Phosphoric 50%, U. S. P.....lb.	.....	.14	.14	.14
.14	.08	.08½	.08	Syrupy, USP, 70 lb drs....lb.	.....	.14	)	.14
.16	.14	.16	.16	Commercial, tanks,.....Unit.	.....	.80	.80	.80
.....	.....			Picramic, 300 lb bbls.....lb.	.65	.70	.70	.65
.70	.65	.50	.50	Picric, kegs.....lb.	.30	.50	.50	.30
.50	.30	.50	.40	Pyrogallic, crystals.....				
1.40	.86	.86	.86	.....lb.	1.50	1.60	1.60	1.30
.42	.33	.32	.27	Salicylic, tech, 125 lb bbl.....lb.	.33	.37	.37	.33
.16	.15	.16	.15	Sulfanilic, 250 lb bbls.....lb.	.15	.16	.16	.15
1.95	1.60	1.95	1.60	Sulfuric, 66 deg, 180 lb cbys 1c-1 wks.....100 lb.	1.60	1.95	1.95	1.60
15.50	15.50			tanks, wks. ton		15.00	15.50	15.00
1.65	1.50	1.37½	1.20	1500 lb dr wks.....100 lb.	1.50	1.65	1.65	1.50
1.42½	1.27½	1.12½	1.12½	60°, 1500 lb dr wks....100 lb.	1.27½	1.42½	1.42½	1.27½
18.50	18.50	18.50	18.50	Oleum, 20%, 1500 lb. drs 1c-1 wks .....ton	.....	18.50	18.50	18.50

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Acid Gallic — Due to a decided increase in Chinese nut galls most producers announced higher price ranges, an advance of 10c per lb. being made in most grades in bbl. lots. U. S. P. continued unchanged at 74c.

Acid Lactic — Both the light and dark grades are in fair demand at unchanged prices. The tanning industry was absorbing larger quantities during the past month.

Acid Muriatic — Producers report satisfactory volume of shipments against existing contracts.

Acid Oxalic — Producers were meeting a fair routine demand for this time of the year with prices unchanged. Anthracite operators are expected to be making withdrawals against contracts shortly and a rather sharp increase in demand is expected. Producers are in a better condition this year to supply current needs.

Acid Sulfuric — Shipments continue to be considerably below the record figures of last year but a curtailment of production schedules has prevented any unwieldy accumulations in the hands of producers. Prices remain stationary, 60 degree continues at $9.50; 66 degrees $14.50 for pyrites acid and a premium of 50c a ton on brimstone. The fertilizer field, as estimated by tag sales, showed a rather sharp decline in July over the same period for the three previous years, although the year's totals were very satisfactory.

Acid Tartaric — The keen competitive situation in this commodity was evidenced by a further reduction of ½c in all grades, granulated and powdered being quoted at 34½c in bbls. and crystals a ½c higher. Imported and domestic continue to be highly competitive with light demand.

Alcohol — Conditions in this market remain quiet with withdrawals reflecting a continued summer slackness. No changes in prices have been announced, but spot business is being eagerly sought after at reported price concessions. Large consumers are still out of the market, antifreeze contracts are said to be booked ahead in fairly large quantities, but at prices considerably below those prevailing in 1929. Until consumers enter the market in a substantial way little indication of the trend of prices will be available.

Ammonia Anhydrous — With the nation in the throes of a record heat wave for the best part of the month shipments were extremely heavy and equal to the month of July. Prices remained stationary.

Ammonia Aqua — Bottlers of household grade experienced a rather unexpected increase of business. The textile

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
42.00	42.00	42 00	42.00	40%, 1c-1 wks net ....ton	.....	42.00	42.00	42.00
.40	.30	.40	.30	Tannic, tech, 300 lb bbls...lb.	.30	.40	.40	.30
.38½	.38	.38	.34½	Tartaric, USP, crys, powd, 300 lb. bbls.....lb	.34½	.36	.38½	.34½
.85	.85	.85	.85	Tobias, 250 lb bbls.....lb.	.....	.85	.85	.85
2.75	2.75	2.75	2.75	Trichloroacetic bottles.....lb.	.....	2.75	2.75	2.75
2.00	2.00	2.00	2.00	Kegs.....lb.	.....	2.00	2.00	2.00
2.25	1.00	1.25	1.00	Tungstic, bbls.....lb.	1.40	1.70	1.70	1.40
47	.38	.55	.43	Albumen, blood, 225 lb bbls..lb.	.38	.40	.40	.38
.20	.12			dark,.....bbls., lb.	.12	.20	.20	.12
.83	.70	.84	.78	Egg, edible.....lb.	.....	.70	.75	69
.80	.70	.80	.70	Technical, 200 lb cases ..lb.	.65	.70	.73	.65
.65	.60	.65	.60	Vegetable, edible.....lb.	.60	.65	.65	.60
.55	.50	.55	.50	Technical.....lb.	.50	.55	.55	.50
				Alcohol				
.17½	.17½	.20	.18½	Alcohol Butyl, Normal, 50 gal drs c-1 wks.....lb.	.17½	.18½	.18½	.17½
.18½	.17½	.19½	.18½	Drums, 1-c-1 wks.....lb.	.17½	.18½	.18½	.17½
.17½	.16½	.19	.17½	Tank cars wks.....lb.	.16½	.17½	.17½	.16½
1.67	1.67	2.25	1.75	Amyl (from pentane) drs c-1 wks.....gal.	.....	1.67	1.67	1.67
1.80	1.42	1.80	1.70	Diacetone, 50 gal drs del..gal.	1.42	1.60	1.60	1.42
2.75	2.69½	3.70	2.65	Ethyl, USP, 190 pf, 50 gal bbls.....gal.	2.63	2.75	2.75	2.63
.71	.71	.55	.50	Anhydrous, drums.....gal.	.56	.60	.71	.56
.52	.49	.52	.48½	Completely denatured, No. 1, 188 pf, 50 gal drs drums extra.....gal.	.40	.44	.51	.40
.51	.48	.50	.43	No. 5, 188 pf, 50 gal drs. drums extra.....gal.	.40	.44	50	.40
.50	.46	.46	.41	Tank, cars.....gal.	.37	.38	.48	.37
1.30	1.00	1.25	1.00	Isopropyl, ref, gal drs.....gal.	.60	1.00	1.00	.60
1.00	1.00	1.00	1.00	Propyl Normal, 50 gal dr..gal.	.....	1.00	1.00	1.00
.82	.80	.82	.80	Aldehyde Ammonia, 100 gal dr lb.	.80	.82	.82	.80
.65	.65	.65	.65	Alpha-Naphthol, crude, 300 lb bbls.....lb.	.....	.65	.65	.65
.34	.32	.37	.35	Alpha-Naphthylamine, 350 lb bbls.....lb.	.32	.34	.34	.32
3.50	3.25	3.30	3.25	Alum Ammonia, lump, 400 lb bbls, 1c-1 wks.....100 lb.	3.30	3.50	3.50	3.30
5.50	5.00	5.50	5.25	Chrome, 500 lb casks, wks .....100 lb.	5.00	5.25	5.25	5.00
3.50	3.00	3.20	3.10	Potash, lump, 400 lb casks wks.....100 lb.	3.20	3.50	3.50	3.20
3.75	3.75	3.75	3.75	Soda, ground, 400 lb bbls wks.....100 lb.	.....	3.75	3.75	3.75
24.30	24.30	26.00	24.30	Aluminum Metal, c-1 NY.100 lb.	.....	24.30	24.30	24.30
.20	.05	.40	.35	Chloride Anhydrous,.....lb.	.05	.15	.15	.05
.18	.17	.18	.17	Hydrate, 96%, light, 90 lb bbls.....lb.	.17	.18	.18	.17
.26	.25	.24	.18	Stearate, 100 lb bbls.....lb.	.24½	.25½	.26	.24½
2.05	1.95	1.75	1.75	Sulfate, Iron, free, bags c-1 wks.....100 lb.	1.95	2.05	2.05	1.95
1.40	1.40	1.40	1.40	Coml, bags c-1 wks..100 lb.	.....	1.40	1.40	1.40
1.15	1.15	1.15	1.15	Aminoazobenzene, 110 lb kegs lb.	.....	1.15	1.15	1.15
				Ammonium				
				Ammonia anhydrous Com. tanks	.....	.05⅝	.05⅝	.05⅝
.14½	.14	.14	.13½	Ammonia, anhyd, 100 lb cyl..lb.	.15½	.15½	.15½	.15½
.03½	.03½	.03	.03	Water, 26°, 800 lb dr del...lb.	.....	.03½	.03½	.03½
				Ammonia, aqua 26° tanks....	.02½	.02¾	.02¾	.02½
				Acetate.....lb.	.28	.39	.39	.28
6.50	5.15			Bicarbonate, bbls., f.o.b. plant .....100 lb.	.....	5.15	5.15	5.15
.22	.21	.22	.21	Bifluoride, 300 lb bbls.....lb.	.21	.22	.22	.21
.12	.09	.09	.08½	Carbonate, tech, 500 lb cs..lb.	.09	.12	.12	.09
5.15	4.45	5.15	4.45	Chloride, white, 100 lb. bbls wks.....100 lb.	4.45	5.15	5.15	4.45
5.75	5.25	5.75	5.25	Gray, 250 lb bbls wks....lb.	5.25	5.75	5.75	5.25
.11¼	.11	.11¼	.11	Lump, 500 lb cks spot...lb.	.11	.11½	.11½	.11
.16	.15	.16	.15	Lactate, 500 lb bbls.....lb.	.15	.16	.16	.15
.10	.06	.10	.06	Nitrate, tech, casks.....lb.	.06	.10	.10	.06
.34	.26	.38	.27½	Persulfate, 112 lb kegs.....lb.	.26	.30	.30	.26
.13	.12½	.18	.18	Phosphate, tech, powd, 325 lb bbls.....lb.	.11½	.12	.13	.11½
2.40	2.05	2.90	2.20	Sulfate, bulk c-1.....100 lb.	.....	1.82½	2.10	1.82½
2.45	2.05	3.00	2.50	Southern points.....100 lb.	.....	1.82½	2.10	1.82½
60.85	52.40	60.85	60.85	Nitrate, 26% nitrogen 31.6% ammonia imported bags c. i. f.....ton	.....	57.60	57.60	57.60
.48	.36	.60	.55	Sulfocyanide, kegs.....lb.	.36	.48	.48	.36
1.70	1.60	2.25	1.72	Amyl Acetate, (from pentane) drs..... lb.	.222	.236	.236	.222
.24	.23	.....	.....	Tech., drs.....lb.	.23	.24	.24	.23
				Alcohol, see Fusel Oil.....				
				Furoate, 1 lb tins.....lb.		5.00	5.00	5.00
.16½	.15	.16½	.15½	Aniline Oil, 960 lb drs.....lb.	.15	.16	.16	.15
.37	.34	.48	.41	Annatto, fine.....lb.	.34	.37	.37	.34
.90	.80	1.00	.90	Anthraquinone, sublimed, 125 lb bbls.....lb.	.50	.55	.90	.50
.10	.08½	.12	.09½	Antimony, metal slabs, ton lots .....lb.	.06½	.07	.09½	.07
.10	.09	.12	.10	Needle, powd, 100 lb cs....lb.	.....	.08	.09½	.08
.18	.13	.18	.17	Chloride, soln (butter of) cbys.....lb.	.13	.17	.17	.13
.10	.08½	.12	.09½	Oxide, 500 lb bbls.....lb.	.08½	.08½	.08½	.07½
.26	.24	.....	.....	Salt, 66%, tins.....lb.	.....	.24	.24	.24
.20	.16	.20	.16	Sulfuret, golden, bbls.....lb.	.16	.20	.20	.16
.42	.38	.42	.38	Vermilion, bbls.....lb.	.38	.42	.42	.38
.19	.17	.19	.17	Archil, conc, 600 lb bbls.....lb.	.17	.19	.19	.17
.14	.12	.14	.12	Double, 600 lb bbls.....lb.	.12	.14	.14	.12
.16	.12	.16	.15	Triple, 600 lb bbls.....lb.	.12	.14	.14	.12
.18¼	.18¼	.16	.15	Argols, 80%, casks.....lb.	.....	.18¼	.18¼	.18¼
.08	.08	.08	.08	Crude, 30%, casks.....lb.	.08	.08	.08	.08
.....	.....			Aroclors, wks.....lb.	.20	.40	.40	.20

CITRIC ACID

"The Gold Medal Standard"

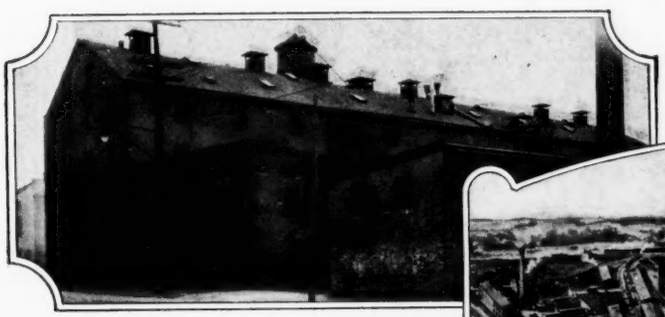
The tart taste of the citrus fruits was familiar to the ancients, but Citric Acid itself was not discovered until 1784, when Carl Wilhelm Scheele isolated it from lemon juice. A number of years elapsed before commercial production was started.

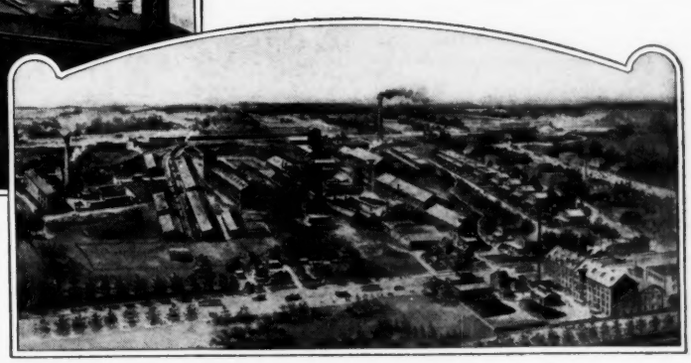
Powers & Weightman of Philadelphia were the pioneer manufacturers in this country, and in the year 1875 the Franklin Institute awarded them the Cresson Medal "for the perfection of result in the product obtained." Powers & Weightman later became Powers-Weightman-Rosengarten Co., who in turn merged their interests with Merck & Co.

The skill and experience acquired in the manufacture of Citric Acid during 57 years of continuous operation, and the priceless tradition of upholding "the Gold Medal Standard", are now the heritage of MERCK & CO. INC.

The plant at East Falls, Philadelphia, has been thoroughly modernized to meet the increasing demand of today.

The Elliott Cresson Gold Medal awarded in 1875 to Powers & Weightman (now Merck & Co. Inc.) "for the introduction of an industry new in the United States and perfection of result in the product obtained in the manufacture of Citric Acid."





The original building (*above*) at East Falls, where Citric Acid was first made in this country, and (*right*) the plant as it looks today.

MERCK & CO. INC.

MANUFACTURING CHEMISTS

SUCCESSORS TO
POWERS-WEIGHTMAN-ROSENGARTEN CO.

Industrial Division:
P. O. Box 1625
Philadelphia

New York — RAHWAY, N. J. — St. Louis

In Canada:
MERCK & CO. LTD.
Montreal

Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

centers were active specially in Paterson and New England.

Ammonium Sulfate — After several weeks of anticipation the new prices of this commodity have finally been announced. The new prices which are lower than those prevailing a year ago are all seaboard or gulf basis for the nearest port of entry to destination. The new schedule as announced is: September shipment $36.50 a ton; October, $37.50; November-December, $38.50, and January-April $39.50 a ton. These figures compare with $43 a ton for June-September and $44 a ton for October-April announced a year ago. Buyers who agree to accept shipments in approximately equal quantities over the life of the contract are afforded a further reduction of 50c a ton. Immediate buying should be stimulated by this announcement as the prices have been withheld for at least six weeks beyond the usual period.

Antimony — Unsettled conditions in China with the uncertainty of future shipments brought about an advance in this commodity, spot now being quoted at 7⅝c per lb. duty paid, f. o. b. New York.

Beeswax — With moderately sized shipments arriving from Africa and with small interest from consumers the spot market weakened during the month and several lots changed hands at the reported price of 24c.

Benzene — With operations in the iron and steel industries still on a restricted basis the former competitive condition of this commodity is improved and further increases are expected shortly.

Bleaching Powder — Sales and shipments are of a very ordinary routine nature with the price structure unaltered.

Blood — With the volume at this time of the year at the low ebb no new developments were noticeable and domestic producers continue to quote spot at $3.15 per unit while importers were holding their posted quotation of $3.40 quite firmly.

Boric Acid — Considerable interest was noticeable in export shipments during the month. No change in price is reported.

Butyl Acetate — While demand has been better the total has not been sufficient to warrant any increase in prices. Automobile and radio production, improved somewhat over July and the furniture factories in the South are more active. Consumers, however, are buying cautiously and only for immediate requirements, preferring to await additional indications of better business before contracting ahead. Prices are based on 1.75 in tanks and .181 @ .187 in drums.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.11	.09	.11	.10½	Arsenic, Red. 224 lb kegs, ca..lb.	.09¾	.10	.11	.08¾
.04½	.04	.04	.03¾	White, 112 lb kegs.....lb.	.04	.04½	.04½	.04
15.00	4.75	14.75	14.75	Asbestine, c-1 wks.....ton	.....	15.00	15.00	15.00
				Barium				
				Barium Carbonate, 200 lb bags wks.....ton	58.00	60.00	60.00	58.00
60.00	57.00	57.00	47.00	Chlorate, 112 lb kegs NY..lb.	.14	.15	.15	.14
.15	.14	.12¾	.12	Chloride, 600 lb bbl wks...ton	63.00	69.00	69.00	63.00
69.00	63.00	65.00	54.00	Dioxide, 88%, 690 lb drs...lb.	.12	.13	.13	.12
.13	.12	.13¾	.13	Hydrate, 500 lb bbls.....lb.	.04¾	.05½	.05½	.04¾
.05½	.04¾	.04¾	.04¾	Nitrate, 700 lb casks.....lb.	.08	.08½	.08½	.08
.08½	.08	.08	.07½	Barytes, Floated, 350 lb bbls wks.....ton	23.00	24.00	24.00	23.00
24.00	23.00	24.00	23.00	Bauxite, bulk, mines.....ton	5.00	8.00	8.00	5.00
8.00	5.00	8.00	5.00	Beeswax, Yellow, crude bags..lb.	.24	.31	.34	.24
.37	.34	.38	.36	Refined, cases.....lb.	.....	.37	.38	.37
.42	.39	.43	.41	White, cases.....lb.	.34	.36	.53	.34
.53	.51	.58	.56	Benzaldehyde, technical, 945 lb drums wks.....lb.	.60	.65	.65	.60
.65	.60	.70	.65					
				Benzene				
				Benzene, 90%, Industrial, 8000 gal tanks wks.....gal.	.....	.21	.22	.21
.23	.23	.23	.21	Ind. Pure, tanks works....gal.	.....	.21	.22	.21
.23	.23	.23	.21	Benzidine Base, dry, 250 lb bbls.....lb.	.65	.67	.74	.65
.74	.70	.74	.70	Benzoyl, Chloride, 500 lb drs.lb.	.....	1.00	1.00	1.00
1.00	1.00	1.00	1.00	Benzyl, Chloride, tech drs....lb.	.....	.25	.25	.25
.25	.25	.25	.25	Beta-Naphthol, 250 lb bbl wk.lb.	.22	.24	.24	.22
.26	.22	.26	.24	Naphthylamine, sublimed, 200 lb bbls.....lb.	.....	1.35	1.35	1.35
1.35	1.35	1.35	1.35	Tech, 200 lb bbls.....lb.	.53	.65	.65	.53
.68	.60	.65	.63	Blanc Fixe, 400 lb bbls wks..ton	75.00	90.00	90.00	75.00
90.00	75.00	90.00	80.00					
				Bleaching Powder				
				Bleaching Powder, 300 lb drs c-1 wks contract.....100 lb.	2.00	2.35	2.35	2.00
2.25	2.00	2.25	2.25	Blood, Dried, fob, NY.....Unit	.....	3.25	3.90	3.25
4.60	3.90	5.25	4.65	Chicago.....Unit	.....	3.75	4.50	3.75
5.00	4.40	5.35	4.75	S. American shipt.....Unit	.....	3.50	4.10	3.50
4.70	4.25	5.05	4.50	Blues, Bronze Chinese Milori Prussian Soluble.....lb.	.....	.35	.35	.35
.35	.32	.35	.31	Bone, raw, Chicago.....ton	.....	39.00	39.00	39.00
42.00	39.00	30.00	29.00	Bone, Ash, 100 lb kegs.....lb.	.06	.07	.07	.06
.07	.06	.07	.06	Black, 200 lb bbls.....lb.	.....	.08½	.08½	.08½
.08½	.08½	.08½	.08½	Meal, 3% & 50%, Imp....ton	.....	31.00	31.00	31.00
35.00	30.00	37.00	31.00	Borax, bags.....lb.	.02½	.03¼	.03½	02½
.03¼	.02½	.05	.2½	Bordeaux, Mixture, 16% pwd..lb.	.12	.14	.14	.12
.14	.10½	.12	.10½	Paste, bbls.....lb.	.12	.14	.14	.12
.14	.10	.10	.08	Brazilwood, sticks, shpmt....lb.	26.00	28.00	28.00	26.00
28.00	26.00	28.00	26.00	Bromine, cases.....lb.	.38	.45	.47	.38
1.20	.60	1.20	.60	Bronze, Aluminum, powd blk.lb.	.60	1.20	1.20	.60
1.25	.55	1.25	.55	Gold bulk.....lb.	.55	1.25	1.25	.55
.195	.184	1.60	1.40	Butyl, Acetate, normal drs... ..... lb.	.181	.187	.20	.181
.186	.181	1.55	1.35	Tank, wks.....lb.	.....	.175	.186	.175
.70	.34	.70	.70	Aldehyde, 50 gal drs wks...lb.	.34	.44	.44	.34
.....	.....			Carbitols ee Diethylene Glycol Mono (Butyl Ether).....	.....	.....	.....	.....
				Cellosolve (see Ethylene glycol mono butyl ether).....				
.50	.50			Furoate, tech., 50 gal. dr., lb.	.....	.50	.50	.50
.36	.25	.36	.34	Propionate, drs.....lb.	.25	.27	.27	.25
.60	.25	.60	.60	Stearate, 50 gal drs.....lb.	.25	.30	.30	.25
.60	.57	.60	.57	Tartrate, drs.....lb.	.57	.60	.60	.57
1.75	.75	2.00	1.35	Cadmium, Sulfide, boxes.....lb.	.90	1.40	1.75	.90
				Calcium				
				Calcium, Acetate, 150 lb bags c-1.....100 lb.	.....	3.00	4.50	3.00
4.50	4.50	4.50	3.50	Arsenate, 100 lb bbls c-1 wks.....lb.	.07	.09	.09	.07
.09	.07	.09	.06	Carbide, drs.....lb.	.05	.06	.06	.05
.06	.05	.06	.05	Carbonate, tech, 100 lb bags c-1.....lb.	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	Chloride, Flake, 375 lb drs c-1 wks.....ton	.....	22.75	22.75	22.75
25.00	22.75	27.00	25.00	Solid, 650 lb drs c-1 fob wks ..... ton	20.00	20.00	20.00	20.00
20.00	20.00	23.00	20.00	Nitrate, 100 lb bags.....ton	42.00	43.00	43.00	42.00
52.00	42.00	52.00	52.00	Peroxide, 100 lb. drs.....lb.	.....	1.25	1.25	1.25
1.25	1.25	.....	.....	Phosphate, tech, 450 lb bbls lb.	.08	.08¾	.08¾	.08
.08	.07	.08	.07	Stearate, 100 lb bbls.....lb.	.25	.26	.26	.25
.26	.25			Calurea, bags S. points, c.i.f. ton	.....	88.65	88.65	88.65
88.15	82.15			Camwood, Bark, ground bbls..lb.	.....	.18	.18	.18
.18	.18	.18	.18	Candelilla Wax, bags.....lb.	.16½	.17	.20	.16½
.24	.22	.28	.22	Carbitol, (See Diethylene Glycol Mono Ethyl Ether).....	.....	.....	.....	.....
.....	.....			Carbon, Decolorizing, 40 lb bags c-1.....lb.	.08	.15	.15	.08
.15	.08	.15	.08	Black, 100-300 lb cases 1c-1 NY.....lb.	.....	.12	.12	.12
.12	.12	.12	12	Bisulfide, 500 lb drs 1c-1 NY.....lb.	.05½	.06	.06	.05½
.06	.05½	.06	.05½	Dioxide, Liq. 20-25 lb cyl...lb.	.....	.06	.06	.06
.06	.06	.06	.06	Tetrachloride, 1400 lb drs delivered.....lb.	.06½	.07	.07	.06½
.07½	.06½	.07½	07	Carnauba Wax, Flor, bags....lb.	.30	.34	.37	.30
.43	.35	.58	.45	No. 1 Yellow, bags.....lb.	.26	.27	.33	.26
.40	.33	.60	.40	No. 2 N Country, bags.....lb.	.23½	.25	.27	.23½
.32	.28	.38	.34	No. 2 Regular, bags.....lb.	.23	.27	.30	.23
.36	.31	.56	.38	No. 3 N. C.....lb.	.17	.18½	.23	.17
.25	.24	.32	.25	No. 3 Chalky.....lb.	.17½	.18½	.23	.17½
.26	.24	.32	25½	Casein, Standard, ground.....lb.	.13½	.15	.15½	.13½
.17	.15	.18½	.14½					

Borax

Boric Acid

ACIDS
BATTERY
NITRIC
MURIATIC
SULFURIC
TARTARIC

CARBON TETRA CHLORIDE
CAUSTIC SODA
TITANIUM TETRA CHLORIDE
CARBON BISULFIDE
CREAM OF TARTAR
NITRO CELLULOSE
SULFUR
(GROUND-REFINED)

F. M. Smith Brand on our Borax and Boric Acid guarantees you products long recognized as the standard for quality and uniformity.

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624 CALIFORNIA ST., SAN FRANCISCO, CAL. RIVES-STRONG BLDG., LOS ANGELES, CAL. 713 PETROLEUM BLDG., HOUSTON, TEX.

Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Calcium Acetate — No improvement is noticeable in the condition of this commodity. Stocks continue to accumulate and while no change in posted prices were announced the undertone was very soft and rumors were heard of sales at lower figures. Producers are sanguine of any improvement for sometime in spite of a rather prolonged summer shut-down of producing plants. Undoubtedly the expected reduction in corn acreage will have a strengthening effect eventually, but for the present has not altered the situation.

Calcium Arsenate — The seasonable demand specially in the South and West has abated but prices remain firm and unchanged. The season as a whole was quite satisfactory to most producers.

Calcium Chloride — The extreme drought in most sections of the country stimulated sales during the month. The season has been a most satisfactory one and compares favorably with 1929 in tonnage. Refrigeration demand was likewise heavy. A much broader adoption of calcium chloride for the treatment of bituminous coal is anticipated this coming season.

Candelilla Wax — In sympathy with the reduction in Carnauba quotations were reduced ¼c. Little interest is displayed by consumers in anything but routine purchases.

Carnauba Wax — Considerable spot business was transacted during the month but mainly between importers who appeared to be short of immediate stocks in this country. The final net change was a reduction on most grades of 1½c. The demand from actual consumers is considered by most importers to be good.

Casein — With stocks sufficient for several weeks already at hand, consumers were uninterested in new offerings and consequently prices were nominal and sales routine. The drought has had the effect of curtailing domestic production but immediate stocks are so large that the effect of this situation will be postponed indefinitely. The paper industry is still operating at reduced schedules but some slight improvement in the paint trade is apparent.

Chestnut — Producers report satisfactory withdrawals against existing contracts but spot interest in the market is lacking at this time.

China Clay — Continues in a strong position both in the domestic and imported grades.

Chlorine — The situation appeared less competitive with an improved movement of material into consuming channels. Water purification has required increased tonnages and the paper field was somewhat more active. With production costs very

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Cellosolve (see Ethylene glycol mono ethyl ether)			
				Acetate (see Ethylene glycol mono ethyl ether acetate)			
.30	.20	.30	.26	Celluloid, Scraps, Ivory cs....lb.	.....	.20	.20	.20
.20	.18	.20	.18	Shell, cases.....lb.	.18	.20	.20	.18
.32	.15	.32	.30	Transparent, cases.....lb.	.....	.15	.15	.15
1.25	1.20	1.40	1.40	Cellulose, Acetate, 50 lb kegs .lb.	1.10	1.25	1.25	1.10
.03¾	.03	.03¾	.03	Chalk, dropped, 175 lb bbls...lb.	.03	.03¾	.03¾	.03
.03½	.02	.04¼	.04½	Precip, heavy, 560 lb cks...lb.	.02	.03½	.03½	.02
.03½	.02½	.03½	.02½	Light, 250 lb casks.....lb.	.02½	.03½	.03½	.02½
.19	.18	.19	.18	Charcoal, Hardwood, lump, bulk wks.....bu.	.18	.19	.19	.18
.06½	.06	.06¼	.06	Willow, powd, 100 lb bbl wks.....lb.	.06	.06½	.06½	.06
.05	.04	.05	.04	Wood, powd, 100 lb bbls...lb.	.04	.05	.05	04
.02	.03½	.03	.02	Chestnut, clarified bbls wks,..lb.	.02½	.03	.03	.02½
.02½	.01½	.02	.01½	25% tks wks.....lb.	.01¾	.02½	.02½	.01¾
.04 5/8	.04¼	.04 5/8	.04 5/8	Powd, 60%, 100 lb bgs wks.lb.	.....	.04¼	.04¼	.04¼
.06	.05½	.06	.05½	Powd, decolorized bgs wks..lb.	.05½	.06	.06	.05½
9.00	8.00	9.00	8.00	China Clay, lump, blk mines.ton	8.00	9.00	9.00	8.00
.02	.01½	.02	.01½	Powdered, bbls.....lb.	.01¼	.02	.02	.01½
12.00	10.00	12.00	10.00	Pulverized, bbls wks.....ton	10.00	12.00	12.00	10.00
25.00	15.00	25.00	15.00	Imported, lump, bulk.....ton	15.00	25.00	25.00	15.00
.03½	.01¾	.03½	.03	Powdered, bbls.....lb.	.01¾	.03	.03	.01¾
				Chlorine				
.08½	.07	.09	.08	Chlorine, cyls lc-1 wks contract .....lb.	.07½	.08½	.08½	.07½
.04½	.04½	.. ..	.....	cyls, cl wks,. contract ...lb.	.....	.04½	.04½	.04½
.03	.025	.03½	.03½	Liq tank or multi-car lot cyls wks contract.....lb.	.025	.025	.025	.025
.10½	.08½	.07	.07	Chlorobenzene, Mono, 100 lb. drs lc-1 wks.....lb.	.10	.10½	.10½	.10
.20	.16	.22	.20	Chloroform, tech, 1000 lb drs..lb.	.15	.16	.16	.15
1.35	1.00	1.35	1.00	Chloropicrin, comml cyls.....lb.	1.00	1.35	1.35	1.00
.29	.26	.29	.26	Chrome, Green, CP.....lb.	.26	.29	.29	.26
.11	.06½	.11	.06½	Commercial.....lb.	.06½	.11	.11	.06½
.18	.15	.17	.15½	Yellow.....lb.	.17	.18	.18	.17
.05¾	.04¾	.05½	.04¾	Chromium, Acetate, 8% Chrome bbls.....lb.	.04¾	.05¼	.05¼	.04¾
.05½	.05½	.05½	.05½	20° soln, 400 lb bbls.....lb.	.....	.05½	.05½	.05½
.28	.27	.28	.27	Fluoride, powd, 400 lb bbl..lb.	.27	.28	.28	.27
.35½	.34½	.35½	.34½	Oxide, green, bbls.....lb.	.34½	.35½	.35½	.34½
10.50	10.00	9.50	9.00	Coal tar, bbls.....bbl	10.00	10.50	10.50	10.00
2.22	2.10	2.22	2.10	Cobalt Oxide, black, bags....lb.	2.10	2.22	2.22	2.10
1.01	.95	.87	.84	Cochineal, gray or black bag..lb.	.95	1.01	1.01	.95
.95	.95	.86	.86	Teneriffe silver, bags.....lb.	.....	.95	.95	.95
				Copper				
24.00	17.00	17.00	12.90	Copper, metal, electrol...100 lb.	.....	11.00	17.78	11.00
.25	.13	.17¼	.16	Carbonate, 400 lb bbls.....lb.	.08½	.18½	.21½	.08½
.28	.25	.28	.28	Chloride, 250 lb bbls.....lb.	.25	.28	.28	.25
.60	.44	.50	.48	Cyanide, 100 lb drs.....lb.	.44	.45	.45	.44
.32	.16½	.17	.16½	Oxide, red, 100 lb bbls.....lb.	.24	.32	.32	.24
.19	.18	.19	.18	Sub-acetate verdigris, 400 lb bbls.....lb.	.18	.19	.19	.18
7.00	5.50	5.50	5.05	Sulfate, bbls c-1 wks...100 lb.	.....	4.25	5.50	4.25
14.00	13.00	14.00	13.00	Copperas, crys and sugar bulk c-1 wks.....ton	13.00	14.00	14.00	13.00
.42	.40	.42	.40	Cotton, Soluble, wet, 100 lb bbls.....lb.	.40	.42	.42	.40
.....	.....	.....	.....	Cottonseed, S. E. bulk c-1...ton	.....	.....	.....	.....
.....	.....	.....	.....	Meal S. E. bulk.....ton	.....	.....	.....	.....
38.00	37.50	38.00	36.00	7% Amm., bags mills...ton	37.50	38.00	38.00	37.50
.28	26½	.27½	.26	Cream Tartar, USP, 300 lb. bbls.....lb.	.25½	.27	.27	.25½
.42	.40¼	.42	.40	Creosote, USP, 42 lb cbys....lb.	.40	.42	.42	.40
.19	.15	.19	.17	Oil, Grade 1 tanks.....gal.	.15	.16	.16	.15
.23	.13	.23	.21	Grade 2.....gal.	.13	.14	.14	.13
.28	.13	.28	.25	Grade 3.....gal.	.13	.14	.14	.13
.17	.14	.20	.17½	Cresol, USP, drums.....lb.	.14	.17	.17	.14
.36	.32			Crotonaldehyde, 50 gal dr....lb.	.32	.36	.36	.32
.17	.16	.17	.16	Cudbear, English.....lb.	.16	.17	.17	.16
.16	.12½	.18½	.18½	Cutch, Rangoon, 100 lb bales..lb.	.12½	.13	.13	.12½
.08½	.08	.07	.06	Borneo, Solid, 100 lb bale..lb.	.08	08½	.08½	.08
2.00	2.00	1.75	1.67½	Cyanamide, bulk c-1 wks Nitrogen unit	....	2.00	2.00	2.00
4.92	4.62	5.12	3.77	Dextrin, corn, 140 lb bags..100 lb.	4.42	4.72	4.82	4.42
4.87	4.57	5.07	3.72	White, 140 lb bags.....100 lb.	4.37	4.67	4.77	4.37
.09	.08	.09	.08	Potato, Yellow, 220 lb bgs..lb.	.08	.09	.09	.08
.09	.08	.09	.08	White, 220 lb bags lc-1....lb.	.08	.09	.09	.08
.08½	.08	.08¾	.08	Tapioca, 200 lb bags lc-1..lb.	.08	.08¼	.08½	.08
3.80	3.80	3.80	3.80	Diamylphthalate, drs wks...gal.	.....	3.80	3.80	3.80
3.10	2.70	2.90	2.85	Dianisidine, barrels.....lb.	.....	2.70	2.70	2.70
.26½	.26½	.28	.26½	Dibutylphthalate, wks.....lb.	.25½	.28	.28	.25½
.31½	.29½	.31½	.29½	Dibutyltartrate, 50 gal drs....lb.	.29½	.31½	.31½	.29½
.13	.05	.....	.....	Dichloroethylether, 50 gal drs lb.	....	.06	.07	.05
.65	.55	.65	.55	Dichloromethane, drs wks....lb.	.55	.65	.65	.55
3.00	2.75	.25	.23	Diethylamine, 400 lb drs.....lb.	2.75	3.00	3.00	2.75
1.90	1.85	2.15	2.15	Diethylcarbonate, drs .....gal.	1.85	1.90	1.90	1.85
.60	.55	2.00	1.85	Diethylaniline, 850 lb drs.....lb.	.55	.60	.60	.55
.13	.10	.60	.55	Diethyleneglycol, drs.....lb.	11	.13	.13	.10
.15	.13	.15	.10	Mono ethyl ether, drs....lb.	.....	.16	.16	.13
.30	.25	.35	.25	Mono butyl ether, drs....lb.	.28	.30	.30	.28
.50	.50	.....	.....	Diethylene oxide, 50 gal dr....lb.	.....	.50	.50	.50
.67	.64	.67	.64	Diethylorthotoluidin, drs.....lb.	.64	.67	.67	.64
.26	.24	.26	.24	Diethyl phthalate, 1000 lb drums.....lb.	.24	.26	.26	.24
.35	.30	.35	.30	Diethylsulfate, technical, 50 gal drums.....lb.	.30	.35	.35	.30
2.62	2.62	2 62	2.62	Dimethylamine, 400 lb drs...lb.	.....	2.62	2.62	2.62
.32	.26	.32	.30	Dimethylaniline, 340 lb drs...lb.	.26	.28	.28	.26

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EASTMAN KODAK COMPANY

Chemical Sales Department

ROCHESTER, N. Y.

Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

near present sales levels it is expected that current prices will be adhered to firmly.

Copper — The metal again registered a new low for the last twenty-five years when the figure of 10¾c was reached in a very competitive market. This low figure was reported on a six million pound order. Smaller quantities were placed at the July level of 11c. The export price is maintained at 11.30c c. i. f. European ports. American Bureau of Metal Statistics reports July production at 143,615 tons as compared with 145,797 tons during June and with 174,507 tons in July 1929.

Copper Carbonate — The agricultural grade was further reduced bringing the current level to 7½c in sizeable quantities. Industrial grade remain unaltered.

Copper Cyanide — Some slight improvement was reported in the plating industries and despite further weakness in the copper metal no price reduction was made by producers.

Copper Sulfate — This market was featured by a heavy demand from foreign points specially in South America. Shipments for industrial purposes in this country showed a marked increase also, so that despite the lower copper price no further scaling down of blue vitriol prices were in evidence. Producers report that the insecticide season was very satisfactory.

Copperas — The textile, dye and printing ink manufacturers are absorbing larger quantities and additional demand was noted for water purification purposes. The entire outlook is for better sales.

Cream of Tartar — Producers announce a reduction of ½c per lb. crystal and powdered now being quoted in single bbl. lots at 26c and in five bbl. lots 25¾c per lb.

Dextrins — Demand continues spotty but prices are firm. The corn crop has prevented any further reductions.

Dry Colors — An appreciable betterment in demand is in evidence from the paint industry both in spot and contract withdrawals. Some shading was in evidence on bone black and likewise on large orders of carbon black. Stocks are large on this commodity and producers were making determined effort to move some of the surplus before fall. With the lead market in a firm condition and bichromates at steady prices, chrome colors continued to feature the market at established prices. The iron oxides and natural ochers were shaded whenever firm business was in sight.

Epsom Salt — No new developments were in evidence during the month. Importers are adhering to the new schedules announced last month and shipments are fair.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.50	.45	.50	.45	Dimethylsulfate, 100 lb drs...lb.	.45	.50	.50	.45
.16½	.15	.16½	.15½	Dinitrobenzene, 400 lb bbls...lb.	.15½	.16½	.16½	.15½
.15	.1.	.16	.15	Dintrochlorobenzene, 400 lb bbls.....lb.	.13	.15	.15	.13
.37	.34	.34	.32	Dinitronaphthalene, 350 lb bbls .....lb.	.34	.37	.37	.34
.32	.31	.32	.31	Dinitrophenol, 350 lb bbls....lb.	.31	.32	.32	.31
.19	.17	.19	.18	Dinitrotoluene, 300 lb bbls...lb.	.16	.17	.18	.16
.49	.42	90	.48	Diorthotolyguanidine, 275 lb bbls wks.....lb.	.42	.46	.46	.42
.....	.....	.....	.....	Dioxan (See Diethylene Oxide)	.....	.....	..	.....
.50	.40			Diphenyl.....lb.	.30	.40	.50	.30
.47	.40	.47	.45	Diphenylamine.....lb.	.....	.40	.40	.40
.40	.30	.72	.40	Diphenylguanidine, 100 lb bbl lb.	.30	.35	.35	.30
.30	.26	.30	.26	Dip Oil, 25%, drums.....lb.	.26	.30	.30	.26
57.00	46.50	62.00	58.00	Divi Divi pods, bgs shipmt..ton	.....	35.00	46.50	35.00
.05½	.05	.05½	.05	Extract.....lb.	.05	.05½	.05½	.05
.84	.77	.82	.73	Egg Yolk, 200 lb cases.....lb.	.72	.75	.80	.72
1.90	1.70	1.75	1.7	Epsom Salt, tech, 300 lb bbls c-1 NY.....100 lb.	1.70	1.90	1.90	1.70
.39	.38	.38	37	Ether, USP, 600 lb. drs.....lb.	.....	.14	.14	.14
				Anhydrous, C.P. 300 lb. drs.lb.	.....	.40	.40	.40
.122	.108	1.05	.75	Ethyl Acetate, 85% Ester, ... tanks.....lb.	.....	.09	.115	.09
.129	.111	1.25	1.10	drums.....lb.	.096	.102	.158	.096
				Anhydrous, tanks.....lb.	.....	.142	.142	.142
				drums.....lb.	.149	.156	.156	.149
.68	.65	.....	.....	Acetoacetate, 50 gal drs....lb.	.65	.68	.68	.65
1.11	1.05	1.11	1.05	Benzylaniline, 300 lb drs...lb.	1.05	1.11	1.11	1.05
.55	.50	.70	.70	Bromide, tech, drums .....lb.	.50	.55	.55	.50
1.90	1.85	.....	.....	Carbonate, 90%, 50 gal drs gal.	1.85	1.90	1.90	1.85
.22	.22	.22	.22	Chloride, 200 lb. drums....lb.	.....	.22	.22	.22
.40	.35	.....	.....	Chlorocarbonate, cbys.....lb.	.....	.30	.40	.30
.52	.50	.....	.....	Ether, Absolute, 50 gal drs..lb.	.50	.52	.52	.50
5.00	5.00			Furoate, 1 lb tins .....lb.	.....	5.00	5.00	5.00
.35	.25	3.50	3.50	Lactate, drums works.....lb.	.25	.29	.29	.25
.30	.30	.30	.30	Methyl Ketone, 50 gal drs..lb.	.....	.30	.30	.30
.55	.45	.55	.45	Oxalate, drums works.....lb.	.45	.55	.55	.45
.36	.30	.36	.30	Oxybutyrate, 50 gal drs wks.lb.	.....	.30½	.30½	.30½
.70	.79	.70	.70	Ethylene Dibromide, 60 lb dr .lb.	.....	.70	.70	.70
.85	.75	.85	.75	Chlorhydrin, 40%, 10 gal cbys. chloro. cont.....lb.	.75	.85	.85	.75
.10	.05	.11	.07	Dichloride, 50 gal drums...lb.	.05	.07	.07	.05
30	.25	.40	.25	Glycol, 50 gal drs wks.....lb.	.25	.28	.28	.25
.31	.23	.27	.31	Mono Butyl Ether drs wks.	.25	.27	.27	.23
.24	.16	.20	.24	Mono Ethyl Ether drs wks	.17	.20	.20	.16
.26	.19	.23	26	Mono Ethyl Ether Acetate dr. wks.....	.19½	.23	.23	.19
.23	.19			Mono Methyl Ether, drs.lb.	.21	.23	.23	.19
				Oxide, cyl.....lb.	.....	2.00	2.00	2.00
.65	.45	.65	.62	Ethylidenaniline.....lb.	.45	.47½	.47½	.45
25.00	20.00	25.00	20.00	Feldspar, bulk.....ton	25.00	20.00	25.00	20.00
21.00	15.00	21.00	15.00	Powdered, bulk works.....ton	15.00	21.00	21.00	15.00
.09	.05	.09	.07½	Ferric Chloride, tech, crystal 475 lb bbls.....lb.	.05	.07½	.07½	.05
4.25&10	3.65&10	5.50&10	4.90&10	Fish Scrap, dried, wks.....unit	.....	3.90&10	4.35&10	3.90&10
4.00&50	3.50&50	4.75&50	4.00&50	Acid, Bulk 7 & 3½% delivered Norfolk & Balt. basis...unit	.....	3.25&50	3.50&50	3.25&50
46.00	41.00	25.00	25.00	Fluorspar, 98%, bags.....	41.00	46.00	46.00	41.00

Formaldehyde

.....	.....	.....	.....	Formaldehyde, aniline, 100 lb.	.....	.....	.....	.....
.42	.37½	.42	.39	drums.....lb.	.37½	.42	.42	.37½
.10	.08½	.09	.08½	USP, 400 lb bbls wks.....lb.	.07½	.07½	.08	.07½
.04	.02½	.04	.02½	Fossil Flour.....lb.	.02½	.04	.04	.02½
20.00	15.00½	20.00	15.00	Fullers Earth, bulk, mines..ton	15.00	20.00	20.00	15.00
30.00	25.00	30.00	25.00	Imp. powd c-1 bags.....ton	25.00	30.00	30.00	25.00
.19½	.17	.19½	.1 ½	Furfural (tech.) drums, wks. lb.	.....	.10	.15	.10
.30	.30	.....	.....	Furfuramide (tech) 100 lb dr..lb.	.....	.30	.30	.30
5.00	5.00	.....	.....	Furfuryl Acetate, 1 lb tins....lb.	.....	5.00	5.00	5.00
.50	.50	.....	.....	Alcohol, (tech) 100 lb dr....lb.	.....	.50	.50	.50
1.00	.50	.....	.. ..	Furoic Acid (tech) 100 lb dr...lb.	.....	.50	.50	.50
1.35	1.35	1.35	1.3	Fusel Oil, 10% impurities ...gal.	.. ..	1.35	1.35	1.35
.05	.04	.05	.0	Fustic, chips.....lb.	.04	.05	.05	.04
.22	.20	.22	.20	Crystals, 100 lb boxes.....lb.	.20	.22	.22	.20
.10	.09	.10	.09	Liquid, 50°, 600 lb bbls....lb.	.09	10	.10	.09
.16	14	.23	.2	Solid, 50 lb boxes.....lb.	.14	.16	.16	.14
26.00	25.00	32.00	30.00	Sticks.....ton	25.00	26.00	26.00	25.00
.52	.45	.52	.50	G Salt paste, 360 lb bbls.....lb.	.45	.50	.50	.45
.21	.18	21	.20	Gall Extract.....lb.	.18	.20	.20	.18
.07	06	.09	.08	Gambier, common 200 lb cs...lb.	.06	.07	.07	.06
.14	.08	.14	.12	25% liquid. 450 lb bbls....lb.	.08	.10	.10	.08
.09	.08½	.12	.11	Singapore cubes, 150 lb bg..lb.	.08½	.09	.09	.08½
.50	.45	.50	.45	Gelatin, tech, 100 lb cases....lb.	.45	.50	.50	.45
1.70	.70	1.00	.70	Glauber s Salt, tech, c-1 wks.....100 lb.	1.00	1.70	1.70	1.00
3.34	3.20	3.34	3.24	Glucose (grape sugar) dry 70-80° bags c-1 NY.....100 lb.	3.24	3.34	3.34	3.24
3.14	3.14	3.14	3.14	Tanner's Special, 100 lb bags .....100 lb.	.....	3.14	3.14	3.14
.24	.20	.24	.20	Glue, medium white, bbls ...lb.	.20	.24	.24	.20
.26	.22	.26	.22	Pure white, bbls.. .....lb.	.22	.26	.26	.22
.16	.13½	.19	.15	Glycerin, CP, 550 lb drs.....lb.	.14	.14½	.14½	.14
.12½	.10½	.15	11½	Dynamite, 100 lb drs.... lb.	.12	.12½	.12½	.12
.08½	.07½	.10½	.08½	Saponification, tanks..... lb.	.07½	.08	.08	.07½
.07½	.06½	.09½	.07½	Soap Lye, tanks.....lb.	07	.07½	.07½	.07
35.00	15.00	35.00	15.00	Graphite, crude, 220 lb bgs...ton	15.00	35.00	35.00	15.00
.09	.06	.09	.06	Flake, 500 lb bbls.....lb.	.06	09	.09	.06

Gums

.04½	.03	.04½	.03¾	Gum Accroides, Red, coarse and fine 140-150 lb bags.....lb.	.03¾	.04½	.04½	.03¾
.06½	.06¾	.06½	.06	Powd, 150 lb bags .....lb.	.06	.06½	.06½	.06

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Ethyl Acetate — Principal factors announce a further reduction in prices bringing the tank car level to 9c; carlots in drums to 9.6c; less than carlot drums to 10.2c freight allowed. These prices are for spot business only and producers are not accepting contracts on this reduced basis. Customers already under contract are being protected at these prices. With the lacquer industry still operating on a very limited schedule manufacturers of solvents are accumulating stocks. This fact combined with the soft condition of the acetic acid market continues to prevent any strengthening of the price structure.

Fish Scrap — Despite only routine inquiry producers advanced prices 10c cwt., on the report that the fishing season was poor and that stocks are low. The ground and the wet acidulated remained without change.

Formaldehyde — Prices are steady with domestic consumption below normal. The plastic industry is still operating at reduced schedule and this was reflected in shipments during the month. Some interest in export shipments was in evidence.

Gambier — Prices are firm and unchanged throughout the month with consumers taking fair quantities on contract.

Glauber Salt — The silk dyeing centers in Paterson and New England have increased considerably the tonnage of this commodity with a further evidence of increased preference for the anhydrous grade.

Glycerine — Spot prices were steady. While shipments were comparatively light reflecting a desire on the part of consumers to cover only their immediate requirements some indication of a stronger demand for anti-freeze compounds is in evidence.

Gums — Additional price reductions occurred during the month notably in the various grades of Manila, Kauri and Benzoin Sumatra. An increase of ½c was recorded in Damar Batavia. Broadly speaking however the market showed during the last two weeks a distinct strengthening. Buyers are exhibiting a much keener interest in price quotations and several important committments have been negotiated. With actual consumer stocks at a very low point a speedy return of normal demand is expected shortly.

Intermediates — Some improvement is reported by dye manufacturers with the result that a wider demand for intermediates was noticeable in that quarter. As production has been restricted for some time this has resulted in a reduction in stocks in the hands of manufacturers.

Japan Wax — Spot as well as future prices in Japan were increased during the month. Spot is now quoted at 13 @ 13½c.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.20	.18	.20	.18	Yellow, 150-200 lb bags....lb.	.18	.20	.20	.18
				Animi (Zanzibar) bean & pea				
.40	.35	.40	35	250 lb cases.....lb.	.35	.40	.40	.35
.55	.50	.55	.50	Glassy, 250 lb cases.....lb.	.50	.55	.55	.50
				Asphaltum, Barbadoes (Manjak)				
.12	.09	.12	.09	200 lb bags.....lb.	.09	.12	.12	.09
.17	.15	.17	.15	Egyptian, 200 lb cases.....lb.	.15	.17	.17	.15
				Gilsonite Selects, 200 lb bags				
65.00	58.00	65.00	55.00	.....ton	58.00	65.00	65.00	58.00
				Damar Batavia standard 136, lb				
.26	.22	.26	.22½	cases.....lb.	.14½	.15	.20	.14
.11	.10½	.11	.10½	Batavia Dust, 160 lb bags.....lb.	.06	.06½	.11	.06
.17½	.15	.17½	.16	E Seeds, 136 lb cases.....lb.	.08	.08½	.13	.08
				F Splinters, 136 lb cases and				
.13½	.13	.14½	.13	bags.....lb.	.07	.07½	.13½	.07
.30½	.26	.30½	.29½	Singapore, No 1, 224 lb cases lb.	.18½	.19	.24	.18½
.24	.21½	.24	.20	No. 2, 224 lb cases.....lb.	.13	.13½	.20½	.13
.14	.10	.15	.13½	No. 3, 180 lb bags.....lb.	.07	.07½	.11½	.07
				Benzoin Sumatra, U. S. P. 120 lb				
.40	.38	.48	.33	cases.....lb.	.33	.34	.40	.33
				Copal Congo, 112 lb bags, clean				
.17	.14	.15	.14	opaque.....lb.	.16	.17	.17	.16
.09	.08½	.09	.08½	Dark, amber.....lb.	.07½	.08	.08	.07½
.14	.12½	.14	.12½	Light, amber.....lb.	.12½	.14	.14	.12½
.36	.35	.36	.35	Water white.....lb.	.37	.45	.45	.37
.65	.58	.65	.58	Mastic.....lb.	.57	.58	.65	.57
				Manila, 180-190 lb baskets				
.17½	.17	.17½	.16	Loba A.....lb.	.13	.15	.17½	.13
.16½	.15½	.16½	.15	Loba B.....lb.	.13½	.14	.16½	.13½
.14½	.13½	.14	.13	Loba C.....lb.	.10	.14	.14	.10
.19	.17	.19	.16	Pale bold, 224 lb cs.....lb.	.16	.18	.19	.16
.13½	.13	.13½	.12	Pale nubs.....lb.	.12	.12½	.13½	.12
.11	.10	.11	.07½	East Indies chips, 180 lb bags lb.	.09	.10	.11	.09
.21	.20	.21	.17	Pale bold, 180 lb bags....lb.	.17½	.18	.21	.17½
.16	15	.16	.14	Pale nubs.....lb	.12½	.14	.16	.12½
		.....	.....	Pontianak, 224 lb cases....				
.23	.20	.25½	.22	Pale bold gen No 1.....lb.	.19	.20	.21	.19
.15	.14½	.15	.13	Pale gen chips spot.....lb.	.13½	.14	.15	.13½
.14	.13½	.14	.13	Elemi, No. 1, 80-85 lb cs...lb.	.12½	.13	.14	.12½
.13½	.13	.13½	.13	No. 2, 80-85 lb cases....lb.	.12	.12½	.13½	.12
.13	.12	.13	.12	No. 3, 80-85 lb cases.....lb.	.11	.12	.13	.11
				Kauri, 224-226 lb cases No. 1				
.57	.50	.57	.50	.....lb.	.48	.54	.57	.48
.38	.35	.38	.35	No. 2 fair pale.....lb.	.32	.33	.38	.32
				Brown Chips, 224-226 lb				
.12	.10	.12	.10	cases.....lb.	.10	.12	.12	.10
		.....	.....	Bush Chips, 224-226 lb.				
.40	.38	.40	.38	cases.....lb.	.38	.40	.40	.38
		.....	.....	Pale Chips, 224-226 lb cases				
.26	.24½	.26	.24½	.....lb.	.24½	.26	.26	.24½
.72	.35	.60	.26	Sandarac, prime quality, 200				
.20	.17	.....	.....	lb bags & 300 lb casks...lb.	.32	.33	.40	.32
.20	.14	.20	.17	Helium, 1 lit. bot. .....lit.	.....	25.00	25.00	25.00
.11	.11	.11	.11	Hematine crystals, 400 lb bbls lb.	.14	.18	.18	.14
.03½	.03	.03½	.03½	Paste, 500 bbls.....lb.	.....	.11	.11	.11
17.00	16.00	16.00	16.00	Hemlock 25%, 600 lb bbls wks lb.	.03	.03½	.03½	.03
.60	.60	.60	.60	Bark.....ton	.....	16.00	16.00	16.00
.58	.48	.56	.62	Hexalene, 50 gal drs wks.....lb.	.....	.60	.60	.60
4.00	3.75	4.00	4.00	Hexamethylenetetramine, drs .lb.	.48	.50	.50	.48
3.90	3.75	.....	.....	Hoof Meal, fob Chicago....unit	.....	3.75	3.75	3.75
				South Amer. to arrive....unit	.....	3.75	3.75	3.75
				Hydrogen Peroxide, 100 vol, 140				
.26	.24	.26	.24	lb cbys.....lb.	.24	.26	.26	.24
				Hydroxyamine Hydrochloride lb.	.....	3.15	3.15	3.15
.15	.12	.15	.12	Hypernic, 51°, 600 lb bbls....lb.	.12	.15	.15	.12
1.30	1.28	1.30	1.28	Indigo Madras, bbls.....lb.	1.28	1.30	1.30	1.28
.18	.15	.18	.15	20% paste, drums.....lb.	.15	.18	.18	.15
.12	.12			Synthetic, liquid.....lb.	.....	.12	.12	.12
				Iron Chloride, see Ferric or				
				Ferrous				
.10	.09	.10	.09	Iron Nitrate, kegs.....lb.	.09	.10	.10	.09
3.25	2.50	3.25	2.50	Coml, bbls.....100 lb.	2.50	3.25	3.25	2.50
.12	.10	.12	.10	Oxide, English.....lb.	.10	.12	.12	.10
.03½	.02½	.03½	.02½	Red, Spanish.....lb.	.02½	.03½	.03½	.02½
.90	.85	.90	.85	Isopropyl Acetate, 50 gal drs gal.	.85	.90	.90	.85
.18	.16	.20	.17	Japan Wax, 224 lb cases.....lb.	.13	.13½	.15½	.13
70.00	60.00	70.00	60.00	Kieselguhr, 95 lb bgs NY....ton	60.00	70.00	70.00	60.00
13.50	13.00	.....	.....	Lead Acetate, bbls wks...100 lb.	12.50	13.50	13.50	12.50
				White crystals, 500 lb bbls				
14.50	14.00	13.50	13.00	wks.....100 lb.	12.00	13.00	14.50	12.00
.15	.13	.15	.13	Arsenate, drs 1c-1 wks.....lb.	.13	.16	.16	.13
				Dithiofuroate, 100 lb dr....lb.	.....	1.00	1.00	1.00
7.75	6.10	6.25	6.25	Metal, c-1 NY.....100 lb.	.....	7.75	7.75	6.10
.14	.14	.14	.14	Nitrate, 500 lb bbls wks....lb.	.....	.14	.14	.14
.18	.17½	.18	.17½	Oleate, bbls.....lb.	.17½	.18	.18	.17½
.08½	.08½	.08½	.08½	Oxide Litharge, 500 lb bbls.lb.	.....	.08½	.08½	.08½
.09½	.09½	.09½	.09½	Red, 500 lb bbls wks....lb.	.....	.09½	.09½	.09½
.09½	.09	.09	.09	White, 500 lb bbls wks...lb.	.....	.09½	.09½	.09½
.08½	.08½	.08½	.08½	Sulfate, 500 lb bbls wk...lb.	.....	.08½	.08½	.08½
57.00	52.00			Leuna saltpetre, bags c.i.f...ton	.....	57.60	57.60	57.60
57.30	52.30			S. points c. i. f.....ton	.....	57.90	57.90	57.90
4.50	4.50	4.50	4.50	Lime, ground stone bags.....ton	.....	4.50	4.50	4.50
1.05	1.05	1.05	1.05	Live, 325 lb bbls wks...100 lb.	.....	1.05	1.05	1.05
				Lime Salts, see Calcium Salts				
.17	.15	.17	.15	Lime-Sulfur soln bbls.....gal.	.15	.17	.17	.15
				Lithopone, 400 lb bbls 1c-1 wks				
.06½	.05½	.06½	.06½	.....lb.	.....	.05½	.05½	.05½
.08½	.08½	.08½	.08½	Logwood, 51°, 600 lb bbls.....lb.	.08½	.08½	.08½	.08½
.03½	.03	.03½	.03	Chips, 150 lb bags.....lb.	.03	.03½	.03½	.03
.12½	.12½	.12½	.12½	Solid, 50 lb boxes.....lb.	.....	.12½	.12½	.12½
26.00	24.00	27.00	26.00	Sticks.....ton	24.00	26.00	26.00	24.00
.08	.07½	.08	.07½	Lower grades.....lb.	.07½	.08	.08	.07½
.25	.22	.30	.30	Madder, Dutch.....lb.	.22	.25	.25	.22
60.00	50.00	50.00	48.00	Magnesite, calc, 500 lb bbl...ton	50.00	60.00	60.00	50.00

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Lead Acetate — The salt has failed so far to follow the recent advance in the lead market. Demand was only routine.

Lithopone — The paint industry is absorbing but routine shipments and little spot business was reported by any of the factors. The situation has been relieved somewhat by a generous absorption of imported stocks.

Mercury — The market has been rather quiet for the past month. Domestic continues to bring $119 @ $120 per flask and imported remains in the same strong position at a price of $124.50.

Methanol — Unsettled conditions continue with demand along modified lines. Synthetically produced material continues to compete keenly with the natural product and buyers are holding to spot purchases for the present.

Montan Wax — A rather substantial increase in demand is in evidence and in consequence several large import commitments are reported to have been made in the month.

Nickel Salts — In common with most plating supplies some degree of improvement is noticeable, specially from the hardware and automobile body builders.

Phenol — The plastic industry has failed so far to reflect a decided improvement with the result that movement is only routine.

Potassium Bichromate — Producers report a steady demand from consuming industries and but slightly below 1929 figures. The tanning industry is beginning to show signs of revival under the recent protection afforded it under the new tariff law.

Potash Caustic — Soap manufacturers are taking their usual quotas and imports were of a fair volume. There is some indication from abroad that revision in prices might occur in the near future.

Potassium Chlorate — Quotations are still based on 8 @ 8½c a lb. with a rather brisk inquiry from foreign sources tending to relieve somewhat the dullness of the domestic market. Match manufacturers are still out of the market.

Potassium Permanganate — Little change is reported. Shipments continue to be placed at 16 @ 16½c a lb. with consumers covering only immediate needs.

Rosins — The primary rosin markets assumed a much healthier tone during the month and advances are recorded in nearly all grades. The volume of turnover was much greater. At the turn of the month some slight reaction set in but a net gain of 10 to 25c resulted in all but the pale grades.

Sal Soda — Additional improvement is reported from the textile centers while

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Magnesium			
.06½	.06	.06½	.06	Magnesium Carb, tech, 70 lb bags NY....lb.	06	.06½	.06½	.06
36.00	36.00	37.00	27.00	Chloride flake, 375 lb. drs c-l wks....ton	.....	36.00	36.00	36.00
33.00	33.00	33.00	33.00	Imported shipment....ton	.....	33.00	33.00	33.00
31.00	31.00	31.00	31.00	Fused, imp, 900 lb bbls NY ton	.....	31.00	31.00	31.00
.10½	.10	.10½	.10	Fluosilicate, crys, 400 lb bbls wks....lb.	.10	.10½	.10½	.10
.42	.42	.42	.42	Oxide, USP, light, 100 lb bbls ....lb.	.....	.42	.42	.42
.50	.50	.50	.50	Heavy, 250 lb bbls....lb.	.....	.50	.50	.50
1.25	1.00	.....	.....	Peroxide, 100 lb cs....lb.	1.00	1.25	1.25	1.00
.10½	.09¾	.10½	.09¾	Silicofluoride, bbls....lb.	.09¾	.10½	.10½	.09¾
.26	.25	.25	.23	Stearate, bbls....lb.	.25	.26	.26	.25
.24	.19	.24	.24	Manganese Borate, 30%, 200 lb bbls....lb.	.....	.19	.19	.19
.08½	.08	.08½	.08	Chloride, 600 lb casks....lb.	.08	.08½	.08½	.08
.06	.04½	.....	.....	Dioxide, tech (peroxide) drs lb.	.04½	.06	.06	.04½
		.50	.35	Ore, powdered or granular				
.03½	.02½	.03½	.03	75-80%, bbls....lb.	.02½	.03	.03	.02½
.04½	.03½	.04½	.04	80-85%, bbls....lb.	.....	.03½	.03½	.03½
.05½	.04	.05½	.05	85-88%, bbls....lb.	.04	.04½	.04½	.04
.08½	.07	.07¼	.07	Sulfate, 550 lb drs NY....lb.	.07	.08	.08	.07
Nom.	.03½	Nom.	.03½	Mangrove 55%, 400 lb bbls..lb.	.03½	Nom.	Nom.	.03½
35.00	30.00	45.00	39 000	Bark, African....ton	.....	32.00	33.00	32.00
15.00	14.00	12.00	10.00	Marble Flour, bulk....ton	14.00	15.00	15.00	14.00
2.05	2.05			Mercurous chloride ....lb.	.....	2.05	2.05	2.05
126.00	120.00	132.00	121.00	Mercury metal....75 lb flask	120.00	124.00	124.50	116.00
.74	.67	.74	.72	Meta-nitro-aniline....lb.	.67	.69	.69	.67
1.55	1.50	1.80	1.50	Meta-nitro-para-toluidine 200 lb. bbls....lb.	1.50	1.55	1.55	1.50
.90	.80	.94	90	Meta-phenylene-diamine 300 lb. bbls....lb.	.80	.84	.84	.80
.72	.67	.74	.72	Meta-toluene-diamine, 300 lb bbls....lb.	.67	.69	.69	.67
				Methanol			
.65	.51	.58	.46	Methanol, (Wood Alcohol),... 95%....gal.	.38	.42	.48	.38
.65	.53	.60	.47	97%....gal.	.39	.43	.49	.39
.68	.53	.63	.44	Pure, Synthetic drums cars gal.	.....	.42½	.50	.42½
.66	.54	.58	.48	Synthetic tanks....gal.	.....	.40½	.50	.40½
				Methanol antifreeze 76½%... tanks....	.....	.31	.31	.31
.95	.95	.95	.95	Methyl Acetate, drums....gal.	.....	Nom.	Nom.	Nom.
.85	.73	.90	.68	Acetone....gal.	.65	.70	.77	.65
.95	.85	.95	85	Anthraquinone....lb.	.70	.75	.85	.70
.....	.....	.....	.....	Cellosolve, (See Ethylene Glycol Mono Methyl Ether)	.....	.....	.....	.....
.60	.45	60	.55	Chloride, 90 lb cyl....lb.	.45	.45	.45	.45
.50	.50			Furoate, tech., 50 gal. dr., .lb.	.....	.50	.50	.50
80.00	65.00	80.00	65.00	Mica, dry grd. bags wks....lb.	65.00	80.00	80.00	65.00
115.00	110.00	115.00	110.00	Wet, ground, bags wks....lb.	110.00	115.00	115.00	110.00
3.00	3.00	.....	.....	Michler's Ketone, kegs....lb.	.....	3.00	3.00	3.00
.75	.70	.75	.70	Monochlorobenzene, drums see, Chorobenzene, mono....lb. Monoethylorthotoluidin, drs. lb.	.70	.75	.75	.70
4.20	3.75	4.20	3.95	Monomethylparaminosufate 100 lb drums....lb.	3.75	4.00	4.00	3.75
.07	.06½	.07	.06½	Montan Wax, crude, bags....lb.	.06	.07	.07	.06
.04½	.03½	.04½	.04½	Myrobalans 25%, liq bbls....b	.03½	.04½	.04½	.03½
.08½	.05	.08½	.08	50% Solid, 50 lb boxes....lb.	.05	.05½	.05½	.05
43.00	40.00	50.00	42.00	J1 bags....ton	.....	41.00	41.00	41.00
40.00	26.50	40.00	32.50	J 2 bags....ton	.....	25.00	26.50	25.00
34.00	27.50	40.00	32.50	R 2 bags....ton	.....	24.50	27.50	24.50
.18	.16	.18	.18	Naphtha, v. m. & p. (deodorized) bbls....gal.	.....	.16	.16	.16
.05½	.05½	.06	.05½	Naphthalene balls, 250 lb bbls wks....lb.	.....	.05½	.05½	.05½
.04½	.04½	.04½	.04½	Crushed, chipped bgs wks..lb.	.....	.04½	.04½	.04½
.05	.05	.05	.05	Flakes, 175 lb bbls wks....lb.	.....	.05	.05	.05
.24	.20	.24	.21	Nickel Chloride, bbls kegs....lb.	.20	.21	.21	.20
.40	.37	.38	.35	Oxide, 100 lb kegs NY....lb.	.37	.40	.40	.37
.13	.13	.09¾	.09	Salt bbl. 400 bbls lb NY...lb.	.....	.13	.13	.13
.13	.13	.09	.08¾	Single, 400 lb bbls NY....lb.	.....	.13	.13	.13
1.30	1.25	1.30	1.25	Nicotine, free 40%, 8 lb tins, cases....lb.	1.25	1.30	1.30	1.25
1.20	.98½	1.20	.98½	Sulfate, 10 lb tins....lb.	.98½	1.20	1.20	.98½
18.00	12.00	14.00	13.00	Nitre Cake, bulk ....ton	14.00	16.00	18.00	14.00
.10½	.09	.10½	.10¼	Nitrobenzene, redistilled, 1000 lb drs wks....lb.	.09	.09½	.09½	.09
.36	.25	Nom.	.40	Nitrocellulose, c-l-l-cl, wks...lb.	.25	.36	.36	.25
4.00	3.40	4.00	3.35	Nitrogenous Material, bulk..unit	.....	3.00	3.40	3.00
.25	.25	.25	.25	Nitronaphthalene, 550 lb bbls.lb.	.....	.25	.25	.25
.15	.14	.15	.14	Nitrotoluene, 1000 lb drs wks.lb.	.14	.15	.15	.14
.16½	.16	Nom.	.25	Nutgalls Aleppy, bags....lb.	.16	.16½	.16½	.16
.13	.12	18	.17	Chinese, bags....lb.	.12	.13	.13	.12
50.00	30.00	50.00	45.00	Oak Bark, ground....ton	30.00	35.00	35.00	30.00
23.00	20.00	23.00	20.00	Whole....ton	20.00	23.00	23.00	20.00
.13½	11¾	.13½	.13	Orange-Mineral, 1100 lb casks NY....lb.	.11¾	.13	.13	.11¾
2.25	2.15	2.25	2.20	Orthoaminophenol, 50 lb kgs..lb.	2.15	2.25	2.25	2.15
2.60	2.50	2.50	2.35	Orthoanisidine, 100 lb drs....lb.	2.50	2.60	2.60	2.50
.65	.50	.65	.50	Orthochlorophenol, drums....lb.	.50	.65	.65	.50
.28	.18	.28	.18	Orthocresol, drums....lb.	.25	.25	.35	.18
.10	.07	.07	.06	Orthodichlorobenzene, 1000 lb drums....lb.	.07	.10	.10	.07
.33	.30	.35	.32	Orthonitrochlorobenzene, 1200 lb drs wks....lb.	.30	.33	.33	.30
.18	.16	.18	.17	Orthonitrotoluene, 1000 lb drs wk....lb.	.16	.18	.18	.16
.90	.85	.90	.85	Orthonitrophenol, 350 lb dr...lb.	.85	.90	.90	.85
.30	.25	.31	.29	Orthotoluidine, 350 lb bbl 1c-1 lb.	.25	30	.30	.25

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Established 1846

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Bicarbonate of Soda

Sal Soda

Monohydrate of Soda

Standard Quality

Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

the demand for cleaning purposes was of a routine nature.

Salt Cake — Firm conditions continue to dominate the market for this commodity. The paper companies are indicating a desire to increase shipments. No price change was made during the month.

Shellac — This commodity has recuperated slightly from the extreme weakness of a month ago and although important price advances have been made dealers and importers have shown less inclination to shade prices below published figures.

Soda Ash — Producers report shipments are about ten per cent below normal. The soap and glass industries have curtailed requirements but the petroleum industry is still taking shipments in encouraging quantity.

Soda Caustic — The decrease in tonnage continues at about ten per cent. The rayon industry is still operating at 50 per cent capacity without any definite signs of immediate improvement.

Sodium Bichromate — Prices remain unchanged. The demand has shown some recent indication of additional improvement and shipments compare favorably with 1928. The tanners are expanding operations while the dry-color producers are maintaining satisfactory withdrawals.

Sodium Chlorate — The market for this commodity has steadied at the reduced prices of last month and factors are reporting normal sales volume on a basis of on 5¾c @ 6c depending upon quantity.

Sodium Cyanide — The pickup in the automobile field has effected withdrawals slightly while the demand for other purposes remains nearly stationary.

Sodium Nitrate — With prices still unannounced little in the way of actual sales are being consummated, consumers preferring to await definite news. Importers are naming $1.99 provisionally with the inclusion of price protection clauses in sales. Some impatience is being manifested by consumers in the lengthy delay on prices. Actual importations are small and stocks in dealers hands at a very low ebb.

Sodium Phosphate — Shipments of the tri-salt are moving out into consuming channels in a satisfactory market and prices are being maintained. The improvement in the silk weighting centers noted last month has been held but in some quarters dissatisfaction is being voiced that still further improvement is not in evidence.

Sodium Prussiate — Prices are unchanged at quoted prices. The paint industry has entered the market in a larger way and several shipments of fair tonnages are moving in this direction.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Orthonitroparachlorphenol, tins lb.	.70	.75	.75	.70
.75	.70	.75	.70	Osage Orange, crystals lb.	.16	.17	.17	.16
.17	.16	.17	.16	51 deg. liquid lb.	.07	.07½	.07½	.07
.07½	.07	.07	.07	Powdered, 100 lb bags lb.	.14½	.15	.15	.14½
.15	.14½	.15	.14½	Paraffin, refd, 200 lb cs slabs				
				123-127 deg. M. P. lb.	.04½	.04½	.04½	.04½
.06¼	.04½	.06¼	.06¼	128-132 deg. M. P. lb.	.04½	.06¼	.06¼	.04½
.07	.04½	.07¼	.07¼	133-137 deg. M. P. lb	.06½	.07½	.07½	.06½
.07¾	.06½	.08¼	.08	Para Aldehyde, 110-55 gal drs. lb.	.20½	.23	.23	.20½
.28	.20½	.28	.20½	Aminoacetanilid, 100 lb bg. lb.	1.00	1.05	1.05	1.00
1.05	1.00	1.05	1.00	Aminohydrochloride, 100 lb kegs lb	1.25	1.30	1.30	1.25
1.30	1.25	1.30	1.25	Aminophenol, 100 lb kegs lb.	.92	1.25	1.02	.92
1.15	.99	1.15	1.15	Chlorophenol, drums lb.	.50	.65	.65	.50
.65	.50	.65	.50	Coumarone, 330 lb drums lb.	.....	.....	.....	.....
.....	.....	.....	.....	Cymene, refd, 110 gal dr. gal.	2.25	2.50	2.50	2.25
2.50	2.25	2.50	2.25	Dichlorobenzene, 150 lb bbls wks lb.	.17	.20	.20	.17
.20	.17	.20	.17	Nitroacetanilid, 300 lb bbls lb.	.50	.55	.55	.50
.55	.50	.55	.50	Nitroaniline, 300 lb bbls wks lb.	.48	.55	.55	.48
.55	.48	.59	.48	Nitrochlorobenzene, 1200 lb drs wks lb.	.23	.26	.26	.23
.26	23	.32	.32	Nitro-orthotoluidine, 300 lb bbls lb.	2.75	2.85	2.85	2.75
2.85	2.75	2.85	2.75	Nitrophenol 185 lb bbls lb.	.45	.50	.50	.45
.55	.45	.55	.50	Nitrosodimethylaniline, 120 lb. bbls lb.	.92	.94	.94	.92
.94	.92	.94	.92	Nitrotoluene, 350 lb bbls lb.	.29	.31	.31	.29
.31	.29	.30	.30	Phenylenediamine, 350 lb bbls lb.	1.15	1.20	1.20	1.15
1.20	1.15	1.20	1.15	Toluenulfonamide, 175 lb bbls lb.	.70	.75	.75	.70
.75	.70	.41	.40	Toluenesulfonchloride, 410 lb bbls wks lb.	.20	.22	.22	.20
.22	.20	.22	.20	Toluidine, 350 lb bbls wk lb.	.38	.40	.40	.38
.42	.38	.42	.40	Paris Green, Arsenic Basis				
				100 lb kegs lb.	.....	.27	.27	.27
.27	25	.25	.20	250 lb kegs lb.	.....	.25	.25	.25
.25	.23	.23	.17	Persian Berry Ext., bbls lb.	.25	Nom.	Nom.	.25
25	.25	.....	.....	Pentasol (see Alcohol, Amyl)				
				Pentasol Acetate (see Amyl Acetate)				
.02½	.02	.03	.02½	Petrolatum, Green, 300 lb bbl. lb.	.02	.02½	.02½	.02
.16	13	.13	.20	Phenol, 250-100 lb drums lb.	.14½	.15	.15	.14½
				Phenyl-Alpha-Naphthylamine, 100 lb kegs lb.	.....	1.35	1.35	1.35
1.35	1.35	1.35	1.35	Phenylhydrazine Hydrochloride lb.	2.90	3.00	3.00	2.90

Phosphate

				Phosphate Acid (see Superphosphate)				
				Phosphate Rock, f.o.b. mines				
3.15	3.00	3.15	3.00	Florida Pebble, 68% basis ton	3.00	3.15	3.15	3.00
4.00	3.50	3.65	3.50	70% basis ton	3.75	4.00	4.00	3.75
4.50	4.00	4.15	4.00	72% basis ton	4.25	4.50	4.50	4.25
5.50	5.00	5.00	5.00	75-74% basis ton	5.25	5.50	5.50	5.25
5.75	5.75	5.75	5.75	75% basis ton	.....	5.75	5.75	5.75
6.25	6.25	6.25	6.25	77-76% basis ton	.....	6.25	6.25	6.25
5.00	5.00	5.00	5.00	Tennessee, 72% basis ton	.....	5.00	5.00	5.00
				Phosphorous Oxychloride 175 lb cyl lb.	.20	.25	.25	.20
.40	.20	.40	.35	Red, 110 lb cases lb.	.37½	.42	.42	.37½
.60	.37½	.65	.60	Yellow, 110 lb cases wks lb.	.31	.37½	.37½	.31
.32	.31	.32	.32	Sesquisulfide, 100 lb cs lb.	.....	.44	.44	.44
.46	.44	.46	.46	Trichloride, cylinders lb.	.20	.25	.25	.20
.35	.20	.....	.....	Phthalic Anhydride, 100 lb bbls wks lb.	.16	.18	.20	.16
.20	.18	.20	.18	Pigments Metallic, Red or brown bags, bbls, Pa. wks ton	37.00	45.00	45.00	37.00
45.00	37.00	45.00	37.00	Pine Oil, 55 gal drums or bbls				
				Destructive dist lb.	.63	.64	.64	.63
.64	.63	.64	.63	Prime bbls bbl.	8.00	10.60	10.60	8.00
10.60	8.00	10.60	8.00	Steam dist. bbls gal.	.65	.70	.70	.65
.70	.65	.70	.70	Pitch Hardwood, wks ton	40.00	45.00	45.00	40.00
45.00	40.00	45.00	40.00	Plaster Paris, tech, 250 lb bbls bbl.	3.30	3.50	3.50	3.30
3.50	3.30	3.30	3.30					

Potash

.07½	.06½	.07½	.07½	Potash, Caustic, wks, solid lb.	.06½	.06¾	.06¾	.06½
.07½	.0705	.07½	.07½	flake lb.	.0705	08	.08	.0705
				Potash Salts, Rough Kainit				
9.10	9.00	9.00	9.00	12.4% basis bulk ton	.....	9.20	9.20	9.10
9.60	9.50	9.50	9.50	14% basis ton	.....	9.70	9.70	9.60
				Manure Salts				
12.50	12.40	12.40	12.40	20% basis bulk ton	.....	12.65	12.65	12.50
18.95	18.75	18.75	18.75	30% basis bulk ton	.....	19.15	19.15	18.95
				Potassium Acetate lb.	.27	.30	.30	.27
				Potassium Muriate, 80% basis				
36.75	36.40	36.40	36.40	bags ton	.....	37.15	37.15	36.75
				Pot. & Mag. Sulfate, 48% basis				
27.50	27.00	27.00	27.00	bags ton	.....	27.80	27.80	27.50
				Potassium Sulfate, 90% basis				
47.75	47.30	47.30	47.30	bags ton	.....	48.25	48.25	47.75
				Potassium Bicarbonate, USP, 320				
.14	.09½	.09½	.09	lb bbls lb.	.09½	.10	.10	.09½
				Bichromate Crystals, 725 lb				
.09¼	.09	.09¼	.08½	casks lb.	.08¾	.09¼	.09¼	.08¾
.13¼	.13	.12½	.12	Powd., 725 lb cks wks lb.	.13	.13½	.13½	.13

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Sodium Silicate — Corrugated boxboard has resumed operations on a more satisfactory scale and the consumption of the 42½ degree grade has been much heavier during the month. Additional fair sized quantities are being absorbed in the curing of concrete roads while the improvement noted last month in the silk weighting centers is at least being maintained. Exports have declined somewhat during the last two months.

Sodium Silicofluoride — This commodity appears to be stabilized at the recent reduction, and a fair amount of business was being done at 4 @ 4½c depending upon quantity and delivery point.

Superphosphate — Consumers are still hestitant in committing themselves ahead so that sales are small and for immediate delivery. Prices are still nominally $8.50 @ $9.00 a ton. Producers are not curtailing production and anticipate that the fall business will be satisfactory. Stocks in the meantime have shown increases for several months.

Tar Acid Oil — Both 15 and 25% grades were meeting with a better demand at steady prices.

Tin Crystals — No change has occurred in the metal market to warrent any alteration in the price schedule and producers are quoting 27½ @ 30c for crystals depending upon quantity.

Tin Tetrachloride — Shipments into the silk-weighting industry were about the same as last month. Some factors are disappointed that the textile centers have not expanded operations further. With the curtailment of tin definitely assured for the balance of the year there is little indication of any further reductions.

Toluene — With a substantial cut in production schedules and a better outlook from the automotive industry consumers are giving serious attention to covering more than immediate needs. Prices remain unchanged.

Turpentine — The market has been unsteady during the past month with shipments below normal. Buyers are exhibiting a very conservative attitude towards future commitments and sales are for immediate delivery. Shipments to the seaboard are said to be large and stocks on hand at shipping points are accumulating.

Whiting — No change has occurred in sometime in the published prices of domestic producers of this commodity. Imported is still bringing 85c to $1.20 cwt., depending upon quantity and grade. The import duty made higher under the new tariff has had some effect in stiffening prices but warehouse stocks are large and the belief is prevalent that it will require

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.17	.14	.17	.16	Binoxiate, 300 lb bbls.....lb.	.14	.17	.17	.14
.30	.30	.30	.30	Bisulfate, 100 lb kegs.....lb.	.....	.30	.30	.30
.05½	.05½	.05½	.05½	Carbonate, 80-85% calc. 800 lb casks.....lb.	.05½	.05½	.05½	.05½
.09	.08½	.09	.06½	Chlorate crystals, powder 112 lb keg wks.....lb.	.08	.08½	.09	.08
.05½	.05½	.05½	.05½	Chloride, crys bbls.....lb.	.05½	.06	.06	.05½
.28	.23	.28	.27	Chromate, kegs.....lb.	.23	.28	.28	.23
.57½	.55	.57½	.55	Cyanide, 110 lb. cases.....lb.	.55	.57½	.57½	.55
.13	.11½	.12	.11½	Metabisulfite, 300 lb. bbl...lb.	.12	.13	.13	.12
.24	.16	.17	.16	Oxalate, bbls.....lb.	.20	.24	.24	.20
.12	.11	.12	.11	Perchlorate, casks wks.....lb.	.11	.12	.12	.11
.16½	.16	.15½	.15	Permanganate, USP, crys 500 & 100 lb drs wks.....lb.	.16	.16½	.16½	.16
.40	.38	.38	.37	Prussiate, red, 112 lb keg...lb.	.38	.40	.40	.38
.21	.18½	.18½	.18	Yellow, 500 lb casks.....lb.	.18½	.21	.21	.18½
.51	.51	.51	.51	Tartrate Neut, 100 lb keg..lb.	.....	.21	.21	.21
.25	.21	.25	.25	Titanium Oxalate, 200 lb bbls .....lb.	.21	.23	.23	.21
5.00	5.00	..	.....	Propyl Furoate, 1 lb tins.....lb.	.....	5.00	5.00	5.00
.05	.04	.05	.04	Pumice Stone, lump bags.....lb.	.04	.05	.05	.04
.06	.04½	.06	.04½	250 lb bbls.....lb.	.04½	.06	.06	.04½
.03	.02½	.03	.02½	Powdered, 350 lb bags.....lb.	.02½	.03	.03	.02½
.03½	.03½	.03½	.03½	Putty, commercial, tubs..100 lb.	.....	.03½	.03½	.03½
.05½	.05½	.05½	.05½	Linseed Oil, kegs.....100 lb.	.....	.05½	.05½	.05½
1.75	1.50	1.50	1.50	Pyridine, 50 gal drums.....gal.	1.50	1.75	1.75	1.50
.13½	.13	.13	.13	Pyrites, Spanish cif Atlantic ports bulk.....unit	.13	13½	.13½	.13
.04	.03	.04	.03	Quebracho, 35% liquid tks....lb.	.03	.04	.04	.03
.04½	.03½	.04	.03½	450 lb bbls c-1.....lb.	.03½	.03½	.03½	.03½
.04½	.05½	.05	.04	35% Bleaching, 450 lb bbl .lb.	.04½	.05½	.04½	.05½
.05½	.05½	.05	.05	Solid, 63%, 100 lb bales cif..lb.	.05	.05½	.05½	.05
.05½	.05½	.05	.05	Clarified, 64%, bales.....lb.	.....	.05½	.05½	.05½
.06	.05½	.06	.05½	Quercitron, 51 deg liquid 450 lb bbls.....lb.	.05½	.06	.06	.05½
.13	.10	.13	.10	Solid, 100 lb boxes.....lb.	.10	.13	.13	.10
14.00	14.00	14.00	14.00	Bark, Rough.....ton	.....	14.00	14.00	14.00
35.00	34.00	35.00	34.00	Ground.....ton	34.00	35.00	35.00	34.00
.46	.44	.46	.45	R Salt, 250 lb bbls wks.....lb.	.40	.44	.45	.40
.18	.18	....	.....	Red Sanders Wood, grd bbls..lb.	.....	.18	.18	.18
1.25	1.15	1.35	1.25	Resorcinol Tech, cans.....lb.	1.00	1.25	1.25	1.00
.62	.57	.57	.57	Rosin Oil, 50 gal bbls, first run .....gal.	.57	.58	.58	.57
.64	.60	.62	.62	Second run.....gal.	.60	.61	.61	.60

Rosin

				Rosins 600 lb bbls 280 lb...unit				
9.25	7.45	9.75	8.20	B.....	.....	5.70	7.75	6.50
9.25	7.70	9.80	8.25	D.....	.....	5.85	8.00	6.50
9.27	8.30	9.95	8.60	E.....	.....	5.87½	8.17	6.55
9.27	8.40	10.10	8.65	F.....	.....	5.87½	8.45	6.55
9.45	8.40	10.10	8.75	G.....	.....	5.90	8.45	6.60
9.50	8.40	10.10	8.75	H.....	.....	5.90	8.55	6.60
9.50	8.40	10.15	8.80	I.....	.....	5.92½	8.58	6.60
9.55	8.45	10.15	8.85	K.....	.....	5.95	8.65	6.65
9.85	8.50	10.30	8.85	M.....	.....	6.00	8.80	6.70
10.30	8.93	11.00	9.15	N.....	.....	6.10	8.95	7.00
11.30	9.00	11.65	10.15	WG.....	.....	6.50	9.25	7.25
12.30	9.30	12.65	10.40	WW.....	.....	7.60	9.85	8.30
30.00	24.00	30.00	24.00	Rotten Stone, bags mines....ton	24.00	20.00	30.00	18.00
.08	.05	.08	.07	Lump, imported, bbls.....lb.	.05	.07	.07	.05
.12	.09	.12	.09	Selected bbls.....lb.	.09	.12	.12	.09
.05	02	05	.02	Powdered, bbls.....lb.	.02	.05	.05	.02
.05	.04½	05	.04½	Sago Flour, 150 lb bags.....lb.	.04½	.05	.05	.04½
1.00	1.00	.....	.. ..	Sal Soda, bbls wks.....100 lb.	....	1.00	1.00	1.00
24.00	19.00	20.00	19.00	Salt Cake, 94-96% c-1 wks. .ton	20.00	24.00	24.00	20.00
21.00	12.00	17.00	15.00	Chrome .....ton	18.00	25.00	25.00	18.00
.06½	.06½	.06½	.06½	Saltpetre, double refd granular 450-500 lb bbls.....lb.	.06½	.06½	.06½	.06½
.01½	.01½	.01½	.01½	Satin, White, 500 lb bbls.....lb	.....	.01½	.01½	.01½
.61	.47	.62½	.49	Shellac Bone dry bbls.....lb.	.28	.33	.47	.28
.45	.40	.55	.45	Garnet, bags.....lb.	.25	.28	.40	.25
.47	.39	.58	.47	Superfine, bags.....lb.	.24	.29	.39	.24
.44	.36	.55	.42	T. N. bags.....lb.	.22	.26	.34	.22
.57	.53	.57	.53	Schaeffer's Salt, kegs.....lb.	.53	57	.57	.53
11.00	8.00	11.00	8.00	Silica, Crude, bulk mines....ton	8.00	11.00	11.00	8.00
30.00	22.00	30.00	22.00	Refined, floated bags.....ton	22.00	30.00	30.00	22.00
32.00	32.00	.....	.....	Air floated bags.....ton	.....	32.00	32.00	32.00
40.00	32.00	40.00	32.00	Extra floated bags.....ton	32.00	40.00	40.00	32.00
22.00	15.00	22.00	15.00	Soapstone, Powdered, bags f. o. b. mines.....ton	15.00	22.00	22.00	15.00

Soda

				Soda Ash, 58% dense, bags c-1 wks.....100 lb.	.....	1.40	1.40	1.40
1.40	1.40	1.40	1.40	58% light, bags.....100 lb.	.....	1.34½	1.34½	1.34½
1.34½	1.34	2.29	2.40	Contract, bags c-1 wks.100 lb.	.....	1.32	1.32	1.32
1.32	1.32	1.32½	1.32½	Soda Caustic, 76% grnd & flake drums.....100 lb.	.....	3.35	3.35	3.35
3.35	3.35	4.21	4.16	76% solid drs.....100 lb.	.....	2.95	2.95	2.95
2.95	2.95	3.91	3.76	Contract, c-1 wks.....100 lb.	.....	2.90	2.90	2.90
2.90	2.90	3.00	3.00	Sodium Acetate, tech....450 lb. bbls wks.....lb.	.05	.05½	.05½	.04
.06½	.04⅞	.05	.04½	Arsenate, drums.....lb.	.18	.19	.19	.18
.19	.18	.....	.....	Arsenite, drums.....gal.	.75	1.00	1.00	.75
1.50	.75	.....	.....	Bicarb, 400 lb bbl NY..100 lb.	.....	2.41	2.41	2.41
2.41	2.41	2.41	2.41					

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some time to work these off. In the meantime consumers are showing greater interest and covering future requirements.

Zinc — Stocks of the metal show an accumulation of 7,803 tons in July over the previous month. Total shipments in July amounted to 32,235 tons compared with 36,670 tons in June. Prices are firm.

Zinc Oxide — In contrast to other paint pigments, this commodity is in strong demand. The rubber trade is spotty as well as manufacturers of floor covering, but the larger paint companies are ordering consistently and in encouraging volume.

Zinc Salts — The consumption of chloride by battery manufacturers is reported at 50% of the demand a year ago. Dry color makers are buying in fair sized quantities. The sulfate likewise is moving in restricted quantities into the rayon and paint fields. Prices are steady at 2¾ @ 3½c depending upon quantity.

OILS AND FATS

Castor Oil — Trading was very light with consumers covering only immediate requirements. No changes in price were made.

Chinawood Oil — Consuming inquiry is lacking and dealers were holding prices firm at 8c in tanks. Some sizable sales are reported from the Pacific Coast but New York markets are dull and lifeless. Dealers were unsuccessful in moving out any large amount of the accumulated stocks and preferred to await developments rather than make any further sacrifices on price. July importations amounted to 16,269,617 lbs. against 14,282,385 lbs. in July, 1929. The total for the first seven months of this year amounted to 80, 981,097 lbs. against only 58,254,852 lbs. in the same period a year ago.

Coconut Oil — Business in this commodity developed little in the way of news during the month. What trading occurred, was small and for immediate requirements. Consumers are holding off, awaiting further news from abroad. Coast offerings are reported at 5¾c in tanks for prompt shipment and in some quarters these figures are named for contracts covering six months period. The New York market remained unchanged at 6⅛c, sellers tanks for prompt and 6¼c for future delivery.

Cod Oil — Light offerings prevented any serious change in prices during the month. Buyers are still holding off from definite future commitments and providing only for their immediate needs.

Corn Oil — With the upset condition of the grain market consumers are dis-

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
.07½	.07	.07	.06½	Bichromate, 500 lb cks wks..lb.	.07	.07½	.07½	.07
.04	.04	.04	.04	Bisulfite, 500 lb bbl wks....lb.	.....	.04	.04	.04
1.35	1.30	1.35	1.30	Carb. 400 ib bbls NY..100 lb.	. ...	2.30	2.30	2.30
.11	.06½	.06¾	.05¾	Chlorate, ... wks..lb.	.05¾	.07¾	.08	.05¾
13.00	12.00	13.00	12.00	Chloride, technical.....ton	12.00	13.00	13.00	12.00
.20	.18	.20	.20	Cyanide, 96-98%, 100 & 250 lb drums wks.....lb.	.16	.17	.20	.16
.09	.08½	.09	.08¾	Fluoride, 300 lb bbls wks...lb.	.08¼	.08½	.09	.08½
.24	.22	.24	.22	Hydrosulfite, 200 lb bbls f. o. b. wks.....lb.	.22	.24	.24	.22
.05	.05	.05	.05	Hypochloride solution, 100 lb cbys.....lb.	.....	.05	.05	.05
3.05	2.50	3.05	2.65	Hyposulfite, tech, pea cyrs 375 lb bbls wks.....100 lb.	2.50	3.00	3.00	2.50
2.65	2.40	2.65	2.40	Technical, regular crystals 375 lb bbls wks....100 lb.	2.40	2.65	2.65	2.40
.45	.45	.45	.45	Metanilate, 150 lb bbls.... lb.	.....	.45	.45	.45
.02½	.02½	.....	.....	Monohydrate, bbls.....lb.	.....	.02½	.02½	.02½
.57	.54	57	.55	Naphthionate, 300 lb bbl...lb.	.54	.57	.57	.54
2.22½	2.09	2.45	2.12½	Nitrate, 92%, crude, 200 lb bags c-1 NY.....100 lb.	1.99	2.07	2.22½	1.99
.08	.07½	.08½	.07½	Nitrite, 500 lb bbls spot....lb.	.07½	.08	.08	.07½
.27	.25	.27	.25	Orthochlorotoluene, sulfonate, 175 lb bbls wks.....lb.	.25	.27	.27	.25
.42	.37	.23	.20	Oxalate Neut, 100 lb kegs..lb.	.37	.42	.42	.37
.22	.18	.22	.21	Perborate, 275 lb bbls.....lb.	.18	.20	.20	.18
3.55	3.25	3.55	3.25	Phosphate, di-sodium, tech. 310 lb bbls.....100 lb.	3.00	3.25	3.25	3.00
4.00	3.90	.....	.....	tri-sodium, tech, 325 lb bbls.....100 lb.	3.50	4.00	4.00	3.50
.72	.69	.72	.69	Picramate, 100 lb kegs.....lb.	.69	.72	.72	.69
.12½	.12	.12½	.12	Prussiate, Yellow, 350 lb bbl wks.....lb.	.12	.12½	12½	.12
.20	.15	.14	.13½	Pyrophosphate, 100 lb keg..lb.	.15	.20	.20	.15
1.65	1.65	1.45	1.20	Silicate, 60 deg 55 gal drs, wks .....100 lb.	.....	1.65	1.65	1.65
.80	.70	1.10	.85	40 deg 55 gal drs, wks .....100 lb.	.70	.80	.80	.70
.05½	.05	.05	.05	Silicofluoride, 450 lb bbls NY .....lb.	.04	.04¼	.05½	.04
.43	.38	.49	.48½	Stannate, 100 lb drums....lb.	.. ..	.34	.43	.34
.29	.25	.29	.18	Stearate, bbls.....lb.	.25	.29	.29	.25
.18	.16	.18	.16	Sulfanilate, 400 lb bbls.....lb.	.16	.18	.18	.16
.02½	.02½	.02½	.02½	Sulfate Anhyd, 550 lb bbls c-1 wks.....lb.	.02½	.02½	.02½	.02½
.02½	.02½	02½	.02½	Sulfide, 80% crystals, 440 lb bbls wks.....lb.	.02½	.02½	.02½	.02½
.04	.03½	.04	.03½	62% solid, 650 lb drums 1c-1 wks.....lb.	.03	.03½	.03½	.03
.03½	.03	.03½	.03½	Sulfite, crystals, 400 lb bbls wks.....lb.	.03	.03½	.03½	.03
.76	.28½	.50	.40	Sulfocyanide, bbls.....lb.	.28	.35	.35	.28
1.40	.88	.85	.80	Tungstate, tech, crystals, kegs .....lb.	.....	.88	.88	.88
.40	.35	.40	.35	Solvent Naphtha, 110 gal drs wks.....gal.	.35	40	.40	.35
.01½	.01½	.01½	.01½	Spruce, 25% liquid, bbls.....lb.	.....	.01½	.01½	.01½
.01	.01	.01	.01	25% liquid, tanks wks.....lb.	.....	.01	.01	.01
.02½	.02	.02½	.02	50% powd, 100 lb bag wks lb.	.02	.02½	.02½	.02
4.12	3.82	4.42	3.07	Starch, powd., 140 lb bags .....100 lb.	3.62	3.92	4.02	3.62
4.02	3.72	4.32	2.97	Pearl, 140 lb bags.....100 lb.	3.52	3.72	3.92	3.52
.06¾	.05¾	.06¾	.05¾	Potato, 200 lb bags.....lb.	.05¾	.06½	.06½	.05¾
.06¾	.05¾	.06¾	.05¾	Imported bags.....lb.	.05¾	.06½	.06½	.05¾
.08½	08	.08½	.08	Soluble.....lb.	.08	.08½	.08½	.08
.10	.09½	.10	.09½	Rice, 200 lb bbls.....lb.	.09½	.10	.10	.09½
.07	.06½	.07	.06½	Wheat, thick bags.....lb.	.06½	.07	.07	.06½
.10	.09½	.10	.09½	Thin bags.....lb.	.09½	.10	.10	.09½
.07½	.07½	.07½	.07½	Strontium carbonate, 600 lb bbls wks.....lb.	.07½	.07½	.07½	.07½
.09¼	.08¾	.09	.08¾	Nitrate, 600 lb bbls NY....lb.	.09	.09¼	.09¼	.09
1.25	1.25	.....	.....	Peroxide, 100 lb drs.....lb.	.....	1.25	1.25	1.25
				Sulfur				
2.05	2.05	2.05	2.05	Sulfur Brimstone, broken rock, 250 lb bag c-1.....100 lb.	.....	2.05	2.05	2.05
19.00	18.00	19.00	18.00	Crude, f. o. b. mines.....ton	18.00	19.00	19.00	18.00
2.40	2.40	2.40	2.40	Flour for dusting 99½%, 100 lb bags c-1 NY....100 lb.	.....	2.40	2.40	2.40
2.50	2.50	2.50	2.50	Heavy bags c-1.....100 lb.	.....	2.50	2.50	2.50
3.45	3.45	3.45	3.45	Flowers, 100%, 155 lb bbls c-1 NY.....100 lb.	.....	3.45	3.45	3.45
2.85	2.65	2.85	2.65	Roll, bbls 1c-1 NY.....100 lb.	2.65	2.85	2.85	2.65
.05½	.05	.05½	.05	Sulfur Chloride, red, 700 lb drs wks.....lb.	.05	.05½	.05½	.05
.04½	.03½	.04½	.03½	Yellow, 700 lb drs wks.....lb.	.03½	.04½	.04½	.03½
.08½	.07	.08½	.08	Sulfur Dioxide, 150 lb cyl....lb.	.07	.07½	.07½	.07
.19	.10	.19	.17	Extra, dry, 100 lb cyl.....lb.	.10	.12	.12	.10
.65	.10	.65	.10	Sulfuryl Chloride, 600 lb dr...lb.	.10	.65	.65	.10
15.00	12.00	15.00	12.00	Talc, Crude, 100 lb bgs NY...ton	12.00	15.00	15.00	12.00
18.00	16.00	18.00	16.00	Refined, 100 lb bgs NY..ton	16.00	18.00	18.00	16.00
25.00	18.00	35.00	30.00	French, 220 lb bags NY...ton	18.00	22.00	22.00	18.00
45.00	35.00	45.00	38.00	Refined, white, bags....ton	35.00	40.00	40.00	35.00
50.00	40.00	50.00	40.00	Italian, 220 lb bags NY...ton	40.00	50.00	50.00	40.00
55.00	50.00	55.00	50.00	Refined, white, bags....ton	50.00	55.00	55.00	50.00
10.00	9.00			Superphosphate, 16% bulk, wks.....ton	8.50	8.75	9.50	8.50
.....	.....			Triple bulk, wks.....unit	.....	.65	.65	.65
4.50&10	4.00&10	5.10&10	4.65&10	Tankage Ground NY.....unit	.....	3.25&10	4.00&10	3.25&10
4.80&10	3.75&10	4.80&10	3.90&10	High grade f.o.b. Chicago.unit	.....	3.35&10	3.85&10	3.35&10
4.80&10	4.35&10	5.00&10	4.60&10	South American cif.....unit	.....	3.25&10	4.25&10	3.25&10
.05½	.04½	.05	.04½	Tapioca Flour, high grade bgs.lb.	.05½	.05½	.05½	.05½
.04¼	.03¾	.04	.03¾	Medium grade, bags.....lb.	.04½	.04¼	.04¼	.04¼
.27	.26	.27	.26	Tar Acid Oil, 15%,drums....gal.	.24	.25	.27	.24
.30	.29	.30	.29	25% drums.....gal.	.26	.28	.30	.26

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- Lamp Black
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- Sodium Acetate
- Sodium Sulphide
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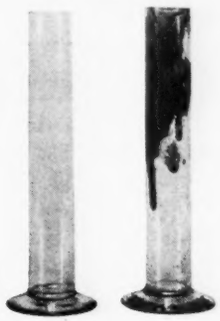

Both tubes contained the same amount of oil, water and alkali (in emulsion), but the left hand tube used sodium metasilicate as the source of alkali, the right hand, caustic. The metasilicate emulsion (oil in water) rinsed clean while the caustic emulsion (water in oil) strongly adhered to the glass surface.

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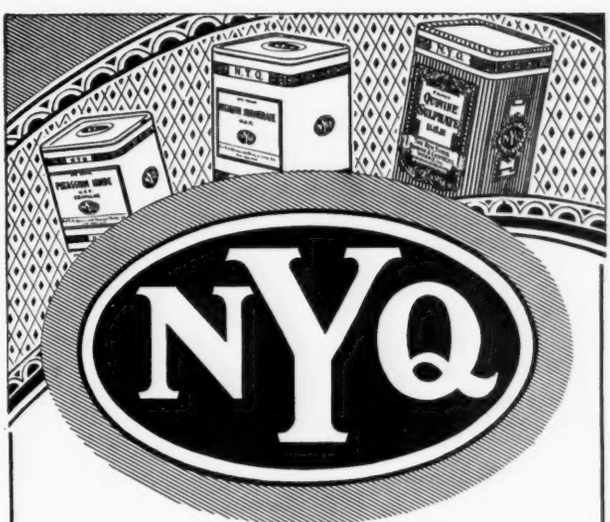

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Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

posed to hand to mouth buying. Until definite indications as to the exact damage of the corn crop dealings undoubtedly will be rather limited.

Cottonseed Oil — Prices during the month of this commodity were irregular. Buying appeared to be mostly of a speculative nature while ultimate consumers were marking time for further indications of the size of the cotton crop. The government weather reports are rather bullish on the prospects of a large crop but Texas and Arkansas reported little relief from the drought. In the main the reports are conflicting.

Degras — Contract customers absorbed fairly large quantities during the month but spot sales were very routine. Pales are quoted at 5½c @ 6c a lb. in bbls. while brown ranges between 4½ and 5c a lb.

Glues — Hand to mouth trading has prevailed in this industry for sometime and despite rather unwieldy stocks producers are obtaining full prices in most cases.

Lard Oil — Despite light trading and little interest on the part of ultimate consumers, prices remained steady. Exports from this country for the first seven and one-half months total 441,817,000 lbs. against 506,918,000 lbs. in 1929. Edible is quoted at 12½c; extra at 10c.

Linseed Oil — A rather severe weakness occurred during the month on receipt of conflicting reports on the flaxseed crop. Reports from the far-west indicate that most of the late sown will not be cut. On the other hand reports from the Argentine give the acreage increase as high as 15-20%. The larger consumers are covering at least part of their future needs at this time. Prices being quoted on oil at Atlantic Coast ports show a sharp loss, to owners of seed and oil in that section with no prospect of more seed being available from the old Argentine crop. The total car receipts to date on the present crop amounts to 11,918 cars as compared with 15,580 in the same period a year ago.

Menhaden Oil — With more favorable fishing conditions reported, inquiries are coming into the market in greater volume but no indication is yet apparent that buyers are willing to contract ahead. Some small sales were reported at unchanged prices. Crude was quiet and steady. Present stocks are not accessive for this time of the year.

Nitrocellulose — Trading was of a sporadic nature with prices showing very little change. The lacquer industry is beginning to feel a slight upward swing, specially from the automotive line and this is being reflected in the basic materials.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Terra Alba Amer. No. 1, bgs or			
1.75	1.15	1.75	1.15	bbls mills.....100lb.	1.15	1.75	1.75	1.15
2.00	1.50½	2.00	1.50	No. 2 bags or bbls...100lb.	1.50	2.00	2.00	1.50
.02½	.01	.02½	.02	Imported bags.....lb.	.01½	.01½	.01½	.01½
.09½	.09	.....	.....	Tetrachlorethane, 50 gal dr...lb.	.09	.09½	.09½	.09
.20	.20	.20	.20	Tetralene, 50 gal drs wks.....lb.	.....	.20	.20	.20
.24	.22	.24	.22	Thiocarbanilid, 170 lb bbl....lb.	.26½	.28½	.28½	.22
				Tin Bichloride, 50% soln, 100 lb				
.14½	.13½	.17½	.14½	bbls wks.....lb.	.....	.12½	.12½	.12½
.38	.33	.41½	.36½	Crystals, 500 lb bbls wks...lb.	.27½	.28	.34	.27½
.48	.39	.58	.48	Metal Straits NY.....lb.	.....	.38	.38	.38
.56	.42	.75	53	Oxide, 300 lb bbls wks.....lb.	.....	.36	.42	.36
				Tetrachloride, 100 lb drs wks.				
.30½	.27½	.35½	.30½	.....lb.	.....	.20¾	.25¾	.20¾
.50	.22	.40	.40	Titanium Dioxide 300 lb bbl..lb	.22	.....	.50	.22
.14	.07½	.14	.13½	Pigment, bbls.....lb.	.07½	.07½	.07½	.07½
.45	.45	.45	40	Toluene, 110 gal drs.....gal.	.....	.40	.40	.40
.40	.40	.45	.35	8000 gal tank cars wks....gal.	.....	.35	.35	.35
.94	.90	.94	.90	Toluidine, 350 lb bbls.....lb.	90	.94	.94	.90
.32	.31	.32	.31	Mixed, 900 lb drs wks.....lb.	.31	.32	.32	.31
.95	.85	.90	.85	Toner Lithol, red, bbls.....lb.	.90	.95	.95	.90
.80	.70	.80	.70	Para, red, bbls.....lb.	.....	.80	.80	.80
1.55	1.50	1.80	1.70	Toluidine.....lb.	1.50	1.55	1.55	1.50
.36	.32	3.90	3.60	Triacetin, 50 gal drs wks.....lb.	.32	.36	.36	.32
.10½	.10	.....	.....	Trichlorethylene, 50 gal dr...lb.	.10	.10½	.10½	.10
.60	.55	.....	.....	Triethanolamine, 50 gal drs...lb.	.40	.42	.42	.40
.45	.33	.50	.36	Tricresyl Phosphate, drs.....lb.	.33	.45	.45	.33
.70	.58	.73	.69	Triphenyl guanidine.....lb.	.58	.60	.60	.58
.75	.60	.75	.70	Phosphate, drums.....lb.	.60	.70	.70	.60
2.00	1.75	3.00	2.50	Tripoli, 500 lb bbls.....100 lb.	.75	2.00	2.00	1.75
.65	.51½	.66½	.50½	Turpentine Spirits, bbls.....gal.	.44	.46½	.61½	.44
.57	.49	.59	.46	Wood Steam dist. bbls....gal.	.39	.44	.52	.39
.30	.15	.20	.18	Urea, pure, 112 lb cases.....lb	15	.17	.17	.15
105.00	98.00			Fert. grade, bags c.i.f.....ton	.....	108.00	108.00	108.00
106.30	99.30			c. i. f. S. points.....ton	.....	109.30	109.30	109.30
				Valonia Beard, 42%, tannin				
55.00	42.00	76.00	55.00	bags.....ton	.....	40.00	40.00	39.50
35.00	30.00	55.00	58.00	Cups, 30-31% tannin.....ton	.....	25.00	27.00	25.00
43.00	35.00	64.00	45.00	Mixture, bark, bags.....ton	.....	30.00	32.50	30.00
2.05	2.00	2.10	1.75	Vermillion, English, kegs....lb.	1.75	1.80	2.05	1.75
1.00	1.00	.....	.....	Vinyl Chloride, 16 lb cyl.....lb.	.....	1.00	1.00	1.00
49.75	43.50	76.00	49.75	Wattle Bark, bags.....ton	.....	42.00	47.75	40.00
				Extract 55%, double bags ex-				
.06½	.06½	.06½	.05¼	dock.....lb.	.....	.06½	.06½	.06½
				Whiting, 200 lb bags, c-1 wks				
1.25	1.00	1.25	1.25	.....100 lb.	.....	1.00	1.00	1.00
13.00	13.00	13.00	13.00	Alba, bags c-1 NY.....ton	.....	13.00	13.00	13.00
1.35	1.35	1.35	1.35	Gilders, bags c-1 NY...100 lb.	.....	1.35	1.35	1.35
.33	.33	.32	.32	Xylene, 10 deg tanks wks. .gal.	.....	.28	.31	.28
.32	.30	.32	.30	Commercial, tanks wks...gal.	.25	.30	.33	.25
.38	.38	.38	.38	Xylidine, crude.....lb.	.....	.37	.38	.37

Zinc

				Zinc Ammonium Chloride powd.,				
5.75	5.25	.05½	5.85	400 lb bbls.....100 lb.	5.25	5.75	5.75	5.25
.11	.10½	.10	.09½	Carbonate Tech, bbls NY..lb.	.10½	.11	.11	.10½
				Chloride Fused, 600 lb drs.				
.06	.05½	.06	.06	wks.....lb.	.05½	.06	.06	.05½
.06½	.06½	.06½	.06½	Gran., 500 lb bbls wks.....lb.	.06½	.06½	.06½	.06½
3.00	3.00	3.00	3.00	Soln 50%, tanks wks...100 lb.	.....	3.00	3.00	3.00
.41	.40	.41	.40	Cyanide, 100 lb drums.....lb.	.40	.41	.41	.40
1.00	1.00			Dithiofuroate, 100 lb dr....lb.	.....	1.00	1.00	1.00
.08½	.08½	.09	.09	Dust, 500 lb bbls c-1 wks...lb.	.09½	.11	.11	.09½
				Metal, high grade slabs c-1				
6.45	6.45½	6.40	6.07½	NY.....100 lb.	.....	6.45	6.45	6.45
.07½	.07	.07½	.07½	Oxide, American bags wks..lb.	.07½	.07½	.07½	.07½
.11½	.09½	.12½	.10½	French, 300 lb bbls wks...lb.	.09½	.11½	.11½	.09½
1.25	1.25	.....	.....	Perborate, 100 lb drs.....lb.	.....	1.25	1.25	1.25
1.25	1.25	.....	.....	Peroxide, 100 lb drs.....lb.	.....	1.25	1.25	1.25
.26	.25	.....	.....	Stearate, 50 lb bbls.....lb.	.23½	.24	.26	.23½
.03½	.03	.03½	.03½	Sulfate, 400 bbl wks.....lb.	.03	.03½	.03½	.03
.32	.30	.32	.30	Sulfide, 500 lb bbls.....lb.	.30	.32	.32	.30
.30	.28	.30	.29	Sulfocarbolate, 100 lb keg..lb.	.28	.30	.30	.28
.03	.02½	.03	.02½	Zirconium Oxide, Nat. kegs...lb.	.02½	.03	.03	.02½
.50	.45	.50	.45	Pure kegs.....lb.	.45	.50	.50	.45
.10	.08	.10	.08	Semi-refined kegs.....lb.	.08	.10	.10	.08

Oils and Fats

.13½	.13	.14½	.13	Castor, No. 1, 400 lb bbls.....lb.	.13	.13½	.13½	.13
.13	.12½	.14	.12½	No. 3, 400 lb bbls.....lb.	.12	.13	.13	.12½
.15	.14	.17	.14	Blown, 400 lb bbls.....lb.	.14	.15	.15	.14
.16	.14½	.17	.14½	China Wood, bbls spot NY...lb.	.09½	.10½	.13	.09½
.15	.13½	.14½	.14½	Tanks, spot NY.....lb.	.09	.09½	.11½	.09
.14½	.12½	.14½	.12½	Coast, tanks, Aug.....lb.	.07½	.08½	.10½	.07½
.10½	.10½	.11½	.10½	Cocoanut, edible, bbls NY....lb.	.....	.10½	.10½	.10½
.09½	.07½	.10	.09½	Ceylon, 375 lb bbls NY....lb.	.....	.07½	.08½	.07½
.08½	.06½	.09	.08½	8000 gal tanks NY.....lb.	.06½	.06½	.07	.06½
.10	.09½	.10½	.09½	Cochin, 375 lb bbls NY....lb.	.07½	.07½	.09½	.07½
.09½	.08½	.09½	.08½	Tanks NY.....lb.	.....	.07½	.08½	.07½
.09½	.07½	.10	.08½	Manila, bbls NY.....lb.	.07½	.07½	.08½	.07½
.08½	.06½	.08½	.08	Tanks NY.....lb.	.06½	.06½	.07½	.06½
.08	.06½	.08½	.07½	Tanks, Pacific Coast.....lb.	.05½	.06½	.07	.05½

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Prices Current and Comment

Purchasing Power of the Dollar: 1926 Average—$1.00 - 1929 Average $1.039 - Jan. 1929 $1.026 - Aug. 1930 $1.189

Naphtha — V. M. and P. grade is holding firm at established prices but the total volume is not very satisfactory to producers.

Olive Oil — An active demand continued for most grades. Unfavorable reports are arriving of the crop in various parts of Europe and aided in maintaining firm but unchanged prices. Edible is still held at $1.75 @ $2.00 depending upon grade and quantity while commercial is quoted at 80c a gal. Olive Oil Foots Immediate stocks are light as well as present shipments. Soap trade is showing a revival of interest and prices were steady at 6 @ 6½c.

Palm Oil — With spot stocks light and very little in the way of shipments arriving dealers found little difficulty in maintaining published prices despite a light demand. Consumers are still adhering to a waiting policy. Perilla Oil Offerings were extremely light during the month and the few sales consummated were at firm and unchanged prices.

Rapeseed Oil — Inquiries indicate a rather depleted condition of stocks in the hands of consumers and several sales of moderate volume were made at 58c a gal. in drums. Consumption for the second quarter totalled 2,805,429 lbs.

Red Oil — Shipments are moving with normal regularity into consuming channels and a fair number of spot inquiries were made. Prices remained unchanged from the previous month. Production in the second quarter amounted 9,824,245 lbs. and consumption to 6,745,960 and factory and warehouse stocks 6,837,705 lbs.

Sesame Oil — Domestic supplies continue to be ample for the restricted demands from consuming industries. No price change is reported with yellow being offered at 9c and white at 10 @ 12½c.

Soy Bean Oil — The new tariff rate of 3½c has eliminated any importations from being negotiated on the Pacific Coast. The nominal asking price is 5½c c. i. f. Pacific Coast ports.

Stearic Acid — Trading is slow in this item. Double pressed is being freely offered at 13½c and triple pressed at 15½ @ 16c depending upon quantity.

Tallow — Prices were again shaded slightly in a determined effort to move accumulating stocks.

Oleo Oil — With offerings restricted a firm tone is in distinct evidence during the month and spot sales were at firm prices. Extra oil is quoted at 10⅝ @ 10¾c and mediums at 9c @ 10¼c.

Neatsfoot Oil — The market is unchanged and steady with spot business being transacted in fair volume but with buyers uninterested in futures.

1929 High	1929 Low	1928 High	1928 Low		Current Market	1930 High	1930 Low
				Cod, Newfoundland, 50 gal bbls			
.64	.57½	.69	.63	.....gal.	.....	.52	.56	.52
.60	.60	.63	.60	Tanks NY.....gal.	.54	.56	.62	.54
				Cod Liver see Chemicals			
.05½	.042	.06½	.05½	Copra, bags.....lb.	.....	.039	.046	.039
.10½	.09½	.11	.10	Corn, crude, bbls NY.....lb.	.....	.08½	.10	.08½
.09½	.07½	.10	.08½	Tanks, mills.....lb.	.....	.07	.08	.07
.11½	.10½	.12½	.11½	Refined, 375 lb bbls NY....lb.	.....	.09½	.10½	.09½
.11	.09	.11½	.10½	Tanks.....lb.	.....	.08	.10	.08
.09	.08½	.09½	.07½	Cottonseed, crude, mill.....lb.	.07	.07½	.07½	.07
.1075	.085	10.65	.09½	PSY 100 lb bbls spot.....lb.	.083	.081	.088	.083
.1080	.088	10.75	.09½	Aug.—Oct.. .....lb.	.....	.085	.095	.085
				Degras, American, 50 gal bbls			
.05	.03½	.05	.04½	NY.....lb.	.03½	.04½	.04½	.03½
.05½	.04½	.05½	.04½	English, brown, bbls NY....lb.	.04½	.05	.05	.04½
.05½	.05	.05½	.05½	Light, bbls NY.....lb.	.05	.05½	.05½	.05
				Dog Fish, Coast Tanks.....gal.	.....	.32	.34	.32
				Greases			
.08½	.06	.08½	.07	Greases, Brown.....lb.	.....	.05½	.06½	.05½
.08½	.06½	.08½	.07	Yellow.....lb.	.....	.05½	.07½	.05½
.11½	.07½	.11	.09½	White, choice bbls NY.....lb	.06¾	.07¾	.08½	.06¾
		.42½	.40	Herring, Coast, Tanks.....gal.	.....	Nom.	.....	.....
Nom.	.....	Nom.	.09½	Horse, bbls.....lb.	.05½	Nom.	Nom.	.05¾
.15¾	.14¾	.16½	.15½	Lard Oil, edible, prime.....lb.	.....	.12½	.13½	.12½
.13½	.12	.13½	.12	Extra, bbls.....lb.	.....	.10	.12	.10
.13¼	.11¾	.13	.11	Extra No. 1, bbls.....lb.	.....	.09¾	.11	.09¾
.162	.105	10.8	10.0	Linseed, Raw, five bbl lots...lb.	.....	.133	.146	.133
.158	.101	10.4	9.6	Bbls c-l spot.....lb.	.....	.129	.142	.129
.15	.093	9.6	8.8	Tanks.....lb.	.....	.123	.134	.123
.52	.45	.48	.40	Menhaden Tanks, Baltimore.gal.	.....	.50	.50	.50
.09	.09	.09	.09	Blown, bbls NY.....lb.	.....	.09	.09	.09
.70	.70	.70	.67	Extra, bleached, bbls NY..gal.	.....	.70	.70	.70
.64	.63	.64	.63	Ligh, pressed, bbls NY....gal.	.63	.64	.64	.63
.67	.66	.67	.66	Yellow, pressed, bbls NY..gal.	.66	67	.67	.66
				Mineral Oil, white, 50 gal bbls				
.60	.40	.60	.40	.....gal.	.40	.60	.60	.40
1.00	.95	1.00	.95	Russian, gal.....gal.	.95	1.00	1.00	.95
.19	.18¼	.19	.18½	Neatsfoot, CT, 20° bbls NY .lb.	.....	.16¾	.17½	.16¾
.13½	.12	.13½	.12	Extra, bbls NY.....lb	.. ..	.10	.11½	.10
.15¼	.13½	.16½	.15½	Pure, bbls NY.....lb.	.....	.12	.13½	.12
.11½	.10¾	.17¾	.11¾	Oleo, No. 1, bbls NY.....lb.	.....	.10½	.12½	10¾
.11½	.10	.15½	.11	No. 2, bbls NY.....lb.	.....	.09	.11	.09
.10½	.09¾	.14	.10	No. 3, bbls NY.....lb.	.....	.09½	.10½	.09½
1.40	1.05	1.40	1.18	Olive, denatured, bbls NY...gal.	.....	.80	1.00	.70
2.00	1.95	2.00	1.75	Edible, bbls NY.....gal.	1.75	2.00	2.00	1.75
.11½	.08½	.11	.09¾	Foots, bbls NY.....lb.	.06	.06½	.08	.06
.09	.08	.09½	.08½	Palm, Kernel, Casks.....lb.	.....	.07½	.08½	.07½
.09	.07½	.09½	.07½	Lagos, 1500 lb casks.....lb.	.....	.07	.07½	.07
.08¼	.07	.08¾	.07	Niger, Casks.....lb.	.05½	.05½	.07½	.05½
Nom.	.....	.12½	.12	Peanut, crude, bbls NY.....lb.	.....	Nom.	Nom.	.....
.15	.14½	.17	.14½	Refined, bbls NY.....lb.	.14½	15	.15	.14½
.20	.15	.21	.13	Perilla, bbls NY.....lb.	.....	.10½	.14½	.10½
.15¾	.13	.15½	.10½	Tanks, Coast.....lb.	.....	.10	.11¼	.10
1.75	1.70	1.75	1.70	Poppyseed, bbls NY.....gal.	1.70	1.75	1.75	1.70
1.04	1.04	1.06	1.01	Rapeseed, blown, bbls NY...gal.	.....	.85	1.00	.85
.90	.82	.92	.83	English, drms. NY.....gal.	.....	.75	.82	.75
.88	.72	.90	.81	Japanese, drms. NY.....gal.	.58	.60	.70	.58
.11¼	.10½	.10¾	.09½	Red, Distilled, bbls.....lb.	.09½	.10½	.10¾	.09½
10½	.09½	.09½	.08	Tanks.....lb.	.08½	.08¼	.09½	.08¼
.44	.42	.50	.42	Salmon, Coast, 8000 gal tks..gal.	.....	Nom.	.44	.42
.51	.45	.50	.41	Sardine, Pacific Coast tks...gal.	.....	.35	.42	.35
.12	.11½	.13½	.12	Sesame, edible, yellow, dos...lb.	.....	.09	.12	.09
.12½	.12½	.15	.12½	White, dos.....lb.	.....	.10	.12½	.10
.40	.40	.40	.40¼	Sod, bbls NY.....gal..	.....	.40	.40	.40
		.....	.....	**Soy Bean, crude**				
.10¼	.09	.09½	.09	Pacific Coast, tanks.....lb.	.....	.09	.09½	.08¼
				Domestic tanks, f.o.b. mills,				
.10½	.08¼			.....lb.	.....	.08	.08¼	.07¾
.12¾	.11¼	.12½	.12	Crude, bbls NY.....lb.	.....	.10½	.10¾	.10½
.11¼	.10¼	.10¾	.10½	Tanks NY.....lb.	.....	.09½	.09¾	.09½
.13½	.13¼	.13¾	.13½	Refined, bbls NY.....lb.	.13¼	.13½	.13½	.13¼
				Sperm, 38° CT, bleached, bbls				
.85	.84	.85	.84	NY.....gal.	.84	.85	.85	.84
.80	.79	.80	.79	45° CT, bleached, bbls NY gal.	.79	.80	.80	.79
				Stearic Acid, double pressed dist				
.18½	.15½	.18½	.11	bags.....lb.	.13½	.14	.15	.13½
				Double pressed saponified bags				
.19	.15¾	.19	.11¾	.....lb.	.14½	.15	.15½	.14½
20½	.17¾	.20½	.13½	Triple, pressed dist bags..lb	.15½	.16	.17	.15½
.12	.09¾	.12½	.09½	Stearine, Oleo. bbls.....lb.	.08¼	.08¾	.09½	.08¼
.08¾	.07	.09½	.08½	Tallow City, extra loose.....lb.	.....	.05½	.07¾	.05
.10½	.08	.10½	.09½	Edible, tierces.....lb.	.....	.06¾	.09¼	.06
.12	.10½	.12½	.11½	Tallow Oil, Bbls, c-l NY...lb.	.....	.09¼	.11	.09½
.11	.09½	.11½	.10½	Acidless, tanks NY.....lb.	.....	.08¼	.10	.08½
Nom.	.08	Nom.	.08	Vegetable, Coast mats.....lb.	.07¼	Nom.	Nom.	.07½
.12	.11	.11	.....	Turkey Red, single bbls.....lb.	.11	.12	.12	.11
.16	.14	.16	.14	Double, bbls.....lb.	.14	.16	.16	.14
				Whale, bleached winter, bbls				
.80	.74	.80	.78	NY.....gal.	.....	.74	.74	.74
.82	.76	.82	.80	Extra, bleached, bbls NY..gal.	.....	.76	.76	.76
.78	.73	.78	.76	Nat. winter, bbls NY.....gal.	.....	.73	.73	.73

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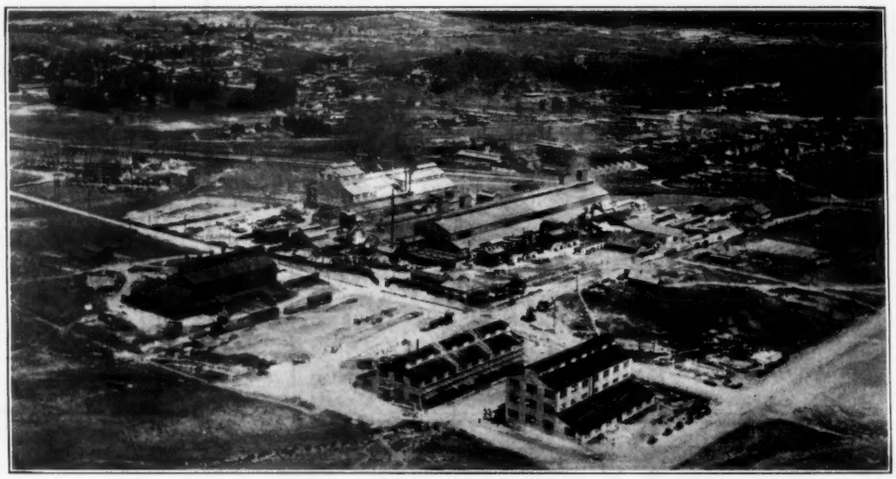

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"WE"—Editorially Speaking

European nitrogen cartels and international agreements are front-page news and subjects for editorial comment from the daily newspapers. The subject is a vital one, in that our food supplies and likewise our national security are dependent upon our independence of foreign nitrogenous material. In Nitrogen, an International Problem, a very complete summary is given of our present sources of supply and the possibilities the future holds for us as a nation in this direction.

Even the layman in the street is interested in our position in the dye field. Since the war this question has been very prominently featured. Coal-Tar Derivatives in the Last Decade is an interesting resume of our phenomenal progress in the last ten years.

Conveyers are a very important part of the equipment of most plants engaged in the manufacture of industrial chemicals. In many places their introduction and further addition would eliminate waste, heavy and laborious work and speed up production schedules. Frederick Wehle who is connected with the engineering staff of the Link-Belt Company points out several of the more important details that should be given considerable thought and consideration before such equipment is purchased and likewise a number of the ways longer and more efficient life may be had after such conveying systems are installed.

M. D. Whittemore who interprets for CHEMICAL MARKETS' readers the technical language of the I. C. C. container regulations effective October first has been intimately connected with the chemical industry for the past fifteen years as a specialist in freight matters. This entire period has been devoted to directing the traffic department of the American Cyanamid Company with the exception of two years when Mr. Whittemore was connected with the Childs Company as assistant to the president. He served in the ordnance department during the war with the rank of Captain and after the armistice was assigned to special duty as a detailed army officer with the American Relief Administration under Mr. Hoover in Poland and Russia. Mr. Whittemore's clubs include New York Athletic, Chemists' and Uptown. When not engaged in appearing before the I. C. C. at Washington or directing the multitudinous activities of the large company he is associated with he finds relaxation on the golf courses of Westchester County.

COMING FEATURES

An American Chemical Invasion of Germany, by William T. Daugherty—Many of the important chemical processes developed in the last few years are finding wide adoption in the German chemical field.

Safety in a Chemical Plant is a Business Not a Slogan—George P. Stokes, safety director for Monsanto describes modern methods in preventing industrial accidents.

The Chemical Industry in the Laundry—George H. Johnson, technical director of the research department of the Laundry-owners National Association pictures the modern relationship between the two fields.

Air Conditioning in the Chemical Industry—Many important processes are dependent upon proper atmospheric conditions. How these are best obtained are related in this article.

Alcohol producers and users alike will find plenty of food for thought in the proposed revision of the industrial alcohol regulations. Two vital and fundamental changes are proposed by the Bureau of Industrial Alcohol. The bureau has very wisely allowed time for discussion on the part of the industry and is open to constructive suggestions and criticisms through the advisory board recently created by Dr. Doran. In Industrial Alcohol Regulations, A Review and Preview, CHEMICAL MARKETS' readers are afforded an opportunity of determining how the proposed changes will effect present routine.

Subscribers of Chemical Markets are reminded that September 15 is the closing date in the Chemical Markets Medal contest. There are a few stray ballots yet to be heard from. A definite opportunity is available for us all to show appreciation of the efforts of these distinguished chemical industrialists.

George J. Scully who writes so interestingly of "Modern Financing in the Chemical Industry" is one of the youngest of the new generation of Wall Street executives. His has been a most spectacular rise from board boy to managing partner of one of the large houses on the street in the short space of ten years. A keen student of business trends he has devoted considerable time to a study of the relation between chemistry and finance. His few leisure hours are usually spent at this time of the year aboard his sloop along the south shore of Long Island where Mr. Scully is well-known and we understand greatly feared in yacht-racing circles.